THE OIL WEEKLY

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The Oil Man's Calendar

SEPT.	
16–18	**National Petroleum Association, Wm. Penn Hotel, Pittsburgh.**
OCT.	
1– 3	**Interstate Oil Compact Commission, Palmer House, Chicago.**
2	**AIME Regional Meeting, St. Louis.**
8–10	**Texas Mid-Continent Oil and Gas Association, Dallas, Texas.**
12–14	**American Society of Mechanical Engineers, Rochester, New York.**
14–16	**AIME, Petroleum Division, Los Angeles.**
19	**National Stripper Well Association, Wichita, Kansas.**
19–21	**Independent Petroleum Association, Wichita, Kansas.**
27–29	**National Safety Congress and Exposition, Chicago.**
29–31	**AIME Petroleum Division, Austin, Texas.**
30–31	**Illinois Mineral Industries Conference, Urbana.**
NOV.	
5– 6	**American Association of Petroleum Geologists, Los Angeles.**
6	**California Natural Gasoline Association, Los Angeles.**
9–13	**American Petroleum Institute, Palmer House, Chicago.**
16–18	**American Institute of Chemical Engineers, Netherlands Plaza Hotel, Cincinnati.**
17–21	**National Chemical Exposition, and Industrial Conference, American Chemical Society, Chicago.**
DEC.	
2	**New Mexico Oil and Gas Association, Artesia Hotel, Artesia.**

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The Changing Panorama

Fuel Oil Rationing Another Headache

RATIONING of heating oil in the East is a generally distasteful prospect. Some oil men think it could and should be avoided. A principal impediment to laying down more fuel oil in the East is the fact there has not been, even yet, after months of talk, action by OPA to prevent financial losses in providing larger volumes of fuel oils, under existing ceilings. If OPA, with aid of the RFC or otherwise, would eliminate the losses entailed in making and delivering more fuel oils, more would be provided, and the spectre of rationing might be dispelled.

Equitable rationing of heating oil appears more difficult than fair rationing of gasoline, because of the many factors entering into minimum requirements of fuel by different families for maintenance of health. OPA contemplates trying to take into consideration those numerous factors, such as number in family, sizes of rooms, exposures to the elements, prevailing temperatures, efficiency of heating system, and so forth. But OPC favors continuation of the present simple system, which provides for delivering to distributors given, flat proportions of former purchases, based on supply available. OPA's rebuttal: gasoline rationing experience proves coupons more equitable than original plan of prorating deliveries to dealers and letting them do the rationing.

Conversion Wisest Course

The consumer's wisest course is to convert heating equipment to coal or other fuel and to get the substitute fuels now. But relatively few are taking that action. The prospect of cold rooms does not loom formidably while August heat bears down.

Among the 1,250,000 oil-heated homes in the East, only about one fifth have equipment impossible to convert to coal, and the other 80 percent could be converted in most instances at relatively low expense, while possibility of a shortage of coal is remote. Yet only about 30,000 of the oil heating units, or about 2½ percent of the total, actually have been converted, despite wide publicity to the threatened oil shortage. People hesitate to make the conversion expenditures, but probably more importantly responsible for failure to switch over is the general reluctance to give up the convenience of using oil, particularly in view of the difficulty and expense of $250 to $500 in obtaining coal stoking equipment that would afford convenience comparable with that of heating with oil.

Tank cars show much wear and tear from the extraordinary service in supplying the East. Cars have been covering 300 miles a day against 70 miles normally. Rivets have been loosened, and leaks have developed. Mainly needed are repairs to trucks and body of cars. Shipping repair parts from foundry or factory to points where needed may require a week. Repairs to the tank cars must be made by the tank car owner and operator, although railroads repair couplings.

Price Control Not New to This Group

PETROLEUM products have been among the items most strictly controlled in price, along with other fuels and lighting materials.

For this group, prices already were 79 percent under control in April, 1942, when the general price-control program was inaugurated; and as of that time, prices were only 7 percent higher than in August, 1939, when the war broke out.

These figures, showing exceptionally strict control for the fuel-lighting group, compare with price-control results in other lines as herewith indicated.

COMMODITY GROUP	Percent Under Control on April, 18, 1942	Percent Price Increase, August 1939-April 1942
Metals and metal products	92	11
House furnishing goods	89	20
Fuel and lighting materials	79	7
Miscellaneous	63	23
Lumber and building materials	50	23
Textile products	39	44
Hides and leather products	32	29
Foods	27	47
Chemicals and allied products	25	31
Farm products	3	71

To lighten the demand for scarce metals, Army training planes are being constructed of wood, even to the gasoline tanks, which are lined with synthetic materials that do not deteriorate through contact with the motor fuel and whcih can be patched or replaced readily.

Gasoline Taxes Show 17 Percent Drop

GASOLINE tax collections for June, 1942, in 26 states were 17 percent less than in June, 1941, according to the Public Roads Administration. Reductions in the gasoline rationing area ranged from 22 percent in Virginia and Georgia, to 31 percent in Rhode Island. In most states taxes on May gasoline sales are paid to the state in June and largely reflect May consumption.

Collections indicate the effectiveness of efforts to conserve tires, gasoline, and motor vehicles, according to public roads officials. It is noted many people no longer use cars for non-essential uses, while use of gasoline to transport war workers and freight for war industries has increased greatly over last year. This conclusion is supported by a decrease of 21.6 percent in vehicles counted at 514 stations on rural highways in 43 states in May, 1942, compared with May, 1941. The number of vehicles decreased 38.5 percent in the gasoline-rationed area and 22.4 percent in the unrationed area.

There was a 30.7-percent reduction in vehicles counted at 205 points on rural highways in 18 states in June, 1942, compared with June, 1941. Greatest reductions on state highways were reported by New England States, Maine reporting 39.0 percent, Connecticut 40.3 percent, Massachusetts 41.9 percent, and New Hampshire 48.8 percent.

Good Neighbors Hit By Oil Shortages

SOUTH AMERICAN countries can sympathize with the United States East Coast over scarcity of oils.

Having no petroleum production of consequence, Brazil must depend mostly on imports, and the shortage of tankers is causing serious scarcity. Because of critical gasoline shortage, all private automobiles have been ordered off the streets. Reduced traffic in turn has caused a general decline in sales and employment in lines depending on trade using motor transportation. Conversion of 10,000 commercial motor vehicles into gasogene propelled apparatus is planned to meet the gasoline shortage. Because of lack of fuel oil, Rio de Janeiro's cement plant was forced to

shut down in mid-July, although borrowing of several thousands of barrels of fuel oil from the Navy was due to permit operation for 10 days at 25 percent of normal rate. Stoppage of cement production has interrupted and threatens to stop construction work on many buildings. These troubles are in addition to Brazil's loss of export trade in coffee and other items.

Argentina has substantial petroleum production, but also is a relatively large user, with domestic supply only about half the total consumption. Consequently, that country has had long lines of automobiles forming at gasoline marketing outlets, while prospective purchasers of kerosine also have been standing in line for supplies. Deliveries having been curtailed, the stations and stores are selling only 5 liters at a time. However, the government does not feel that rationing is necessary. The Ministry of Marine has announced that the Argentine production of gasoline will be sufficient for domestic requirements if consumers will reduce use by 20 percent from that in 1941, which totaled about 8,700,000 barrels. The acuteness of the scarcity heretofore has lain partly in the fact demand was running at record levels. In the first 4 months of 1942, consumption was 250,000 barrels greater than in the corresponding months of 1941.

Oil's War Fronts

How essential, really, is oil in the fighting of a war?

Without thinking of this question, the Department of Commerce answered it on the front cover of a recent issue of its weekly bulletin, "Domestic Commerce," with these concise statements:

"This War Has Four Fronts:
"The Fighting Front
"The Factory Front
"The Farm Front
"The Fireside Front

"All Are Indispensable to Victory."

To those statements may be added: Oil is indispensable on all those fronts.

How to Drop a Bomb in a Bottle-Neck

By ROY E. LEIGH*

A SURVEY of the German oil industry made several years ago on behalf of THE OIL WEEKLY revealed that German petroleum engineers were amazingly backward in the adoption of modern drilling and production methods invented and developed in America and in other non-European countries. The apparent explanation for this strange lack of appreciation of machines and methods of proved and established value was found in a study of the German character. German engineers are willing and eager to make progress, but they insist on advancing solely along German lines. Resting on their scientific laurels, they appeared unwilling to go beyond the limits of the German language in exploring the field of petroleum technology. It is their misfortune that about 95 percent of that science is recorded in the English language, one barrier the conquest of which had not been attempted by the average German oil producer.

Up to now, American oil men operating in foreign fields—and especially American manufacturers of oil well supplies and equipment—have had cause to rejoice in the pig-headed trait of the German national character. If their petroleum engineers had been less stubborn and more willing to consider the merits of foreign ideas, then German heavy industry might have been led by them into serious competition with American manufacturers of rotary drilling equipment.

The German oil industry probably got its first real insight into the virtues of the rotary drilling system shortly after Roumania was over-run. There, unless they are deaf, dumb and blind—as well as pig-headed and stubborn—they must have got a real eye-opener. No reports from Roumania have reached us since German engineers presumably became responsible for the maintenance and expansion of Roumanian oil production in a field where American methods were extensively employed; but our guess is that the virtual annexation of Roumania must have resulted in the belated adoption of the methods found in successful use there.

Under the exigencies of war, German petroleum engineers probably were forced to carry on with the methods and machinery thus discovered unto them. If so, then the heavy industry of Germany undoubtedly has been called upon to duplicate the rotary rigs and repair parts required for the maintenance of production in Roumania.

As of the date of our investigation, only one German foundry, Alfred Wirth, of Erkelenz, Rhineland, was engaged in the manufacture of rotary drilling equipment, and this firm was interested chiefly in export sales to Russia. Unless Wirth's activities have been expanded on a large scale, or transferred to Krupp, Skoda, or elsewhere, the Germans are likely to be delayed in their full exploitation of Russian fields toward which they are now driving.

Oil has always been recognized as a serious German bottle-neck, and, thus, we discover that the manufacture of drilling and production equipment represents a bottle-neck within a bottle-neck. The projected bombing of German industrial centers by the R.A.F. and the U. S. Army Air Force may serve to nullify the German conquest of the North Caucasus.

The battle of the oil fields is developing in such manner as to indicate that Russian strategy is to attempt to contain the *Wehrmacht* within the natural barriers afforded by the Volga River on the east and the Caucasus Mountains on the south. Thus, the Russians are yielding in the North Caucasus and holding at Stalingrad, on the Volga. Perhaps it is the British plan, through Iran, to give support to the Russian army in defense of the Caucasus Mountains north of the Baku oil fields.

The loss of the Grozny District is to be regretted, insofar as it may afford oil to Germany; but oil cannot be denied to Russia unless and until the Germans are able to cut the Volga artery, as well as the railroad which roughly parallels it; or to capture the Baku District, south of the Caucasus Mountains.

Between Grozny and Baku lies a snow-clad mountain barrier crossed only by one tortuous highway, whose many hair-pin turns are easily defensible. The Black and Caspian shore-lines, however, are exposed to the new Axis by-pass technique, employed so successfully by the Japanese in the conquest of Malaya and Singapore.

* Mr. Leigh, who contributes these interesting sidelights on the German oil situation, formerly was Foreign Editor of THE OIL WEEKLY and during the early 30s in this capacity visited every important oil area in the world, including those of Germany and Russia. He is now engaged in the oil business in Austin, Texas, but continues his interest in oil developments along the international fronts.

☆ ☆ ☆ ☆ WASHINGTON ROUNDUP ☆ ☆ ☆ ☆

By B. F. LINZ
Washington Correspondent

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Oil Region Rationing Looms as Tank Car Use Restricted to Assist East Coast

»

Plantation Extension Approved And Other Pipe Line Plans Are Progressing

»

Plan Conversion of Refineries to War Products Output

»

Draft Deferment Given Some of Industry's Occupations

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WITH railroad delivery of automotive gasoline prohibited by OPC order last week in 20 non-rationed states, including such large petroleum producing regions as Texas, Oklahoma, Kansas, Louisiana and Illinois, the prospects that ensuing distribution difficulties would create a shortage of such magnitude in these areas that it would result in application of rationing to provide equitable distributing of available supply to motorists loomed strong on the horizon. The move was made in an effort to release an additional 5000 to 7000 tank cars for East Coast duties.

Further steps to put the oil industry on an all-out war basis were taken last week when OPC which earlier had provided for general patent exchanges, launched its program for the conversion of all possible refinery equipment from peace-time oil to war-time product production.

Officials declared that if carried out to the extent at which they aim, every operating refinery in the country shortly will be working either on essential civilian or war production and no usable equipment will be left idle.

At the capitol, W. S. Farish, smarting under Department of Justice charges of attempted monopoly based on tenuous grounds, told the Senate patents committee flatly that if Standard Oil Company (New Jersey) hadn't made the deals with I. G.-Farbenindustrie at which the government is sniping, the United States today would have fewer bombs to throw on the Nazis and Japs.

Farish required a 38-page statement and two days' time to tell the committee in detail just how his company had dealt with the Germans and the beneficial results to the current war effort, and refuted in detail the charges of Department attorneys, at least one of whom had admitted he knew little or nothing about the synthetic rubber he was discussing.

Standard Oil Company, Farish said, long since discovered that monopolies do not pay.

Admitting that the oil companies are prepared to furnish far more butadiene than can be processed by the projected rubber plants, Secretary of Commerce Jesse Jones deferred construction of the 100,000-ton plant which Standard Oil Company (Indiana) was preparing to build.

Rail transportation of oil to the East has passed beyond the stage of car-lot delivery and now is moving in solid train loads at the rate of 300 50-car trains a week into the area while a similar number trundle back to the oil fields for another load, ODT reported. Seeing in the train movement the only way in which to get a much further increase in the volume of deliveries, ODT is not extending it to the shipments of the smaller producers.

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RAIL HAUL: Railroad transportation of automotive gasoline was ordered discontinued in 20 non-rationed states August 24 in a move of OPC to release an additional five to seven thousand cars for use to the East Coast.

The increased efficiency in the handling of tank cars, which now move in solid trains and which, during the week ended August 18 brought in an average of 830,820 barrels daily, will make it possible for the roads to handle more cars than originally estimated, it was explained.

Included in the OPC directive curtailing transportation was an order, issued with the approval of the Department of Justice, requiring suppliers and distributors affected by the withdrawal of cars to make such joint purchases, sales, loans, or exchanges of products, together with appropriate arrangements for joint use of terminal, transportation and distribution facilities, as may be required to attain the maximum efficient utilization of all facilities.

However, Deputy Coordinator Davies admitted in commenting on the order, "Whether or not this will be sufficient to permit of the Mid-Continent and Southwest operating without rationing of petroleum remains to be seen," but, he added, "it has been the consistent policy of OPC that transportation facilities should be withdrawn from unrationed areas for the relief of the rationed territory as rapidly as they could be usefully employed and that if this withdrawal of transportation created a shortage in the area losing it, curtailment should be extended.

The directive applies to Texas, Louisiana, Mississippi, Alabama, Oklahoma, Arkansas, Tennessee, Kentucky, Missouri, Kansas, Nebraska, Iowa, Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota and North and South Dakota.

The order specifically provides:

"No person, natural or artificial, engaged in the business of refining, transporting, purchasing or distributing petroleum or petroleum products in the United States on or after August 24, 1942, shall move, cause to be moved, purchase or sell for movement by railroad tank car, any automotive gasoline for commercial distribution, from any point within the United States to any other point within the states of Texas, Louisiana, Mississippi, Alabama, Oklahoma, Arkansas, Tennessee, Kentucky, Missouri, Kansas, Nebraska, Iowa, Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota, North and South Dakota.

"In order, during the effective period of the directive, to maintain necessary supply and distribution of petroleum products, and in order to avoid undue hardship upon suppliers, distributors, and purchasers throughout the states named, all persons, natural or artificial, in those states, engaged in refining, transporting or distributing petroleum products shall make such purchases,

sales, exchanges, or loans of petroleum products affected by the directive, and shall arrange for such common use of terminal, transportation or distribution facilities as may be required in order to attain the most efficient utilization of all such facilities.

All such purchases, sales, exchanges or loans, and arrangements for common use of terminals, transportation or distribution facilities shall remain subject to review by the district director of supply of the Office of Petroleum Coordinator for War to the end that no supplier or distributor in the area affected shall be deprived of an opportunity to share equitably in the available supply and use of facilities throughout the area affected. "The supplies and distribution subcommittees for District 2 or 3 shall, subject to the direction of the director of supply, Office of Petroleum Coordinator for War, or of such district director as he may designate, arrange for such common purchases, sales, exchanges, and loans of petroleum products and for such common use of transportation, terminal or distribution facilities as may be necessary to attain maximum efficient utilization of all available transportation, supply and distribution facilities, as will insure the maintenance of adequate supplies of petroleum products throughout the area included within the states all such common purchases, sales, exchanges and loans of products, together with the common use of available transportation, terminal or distribution facilities shall be made upon such terms and conditions as will afford every supplier and distributor in the area affected a fair share of, and equitable opportunity to share in, the total supply and use of facilities throughout the area affected."

Program Launched For Converting All Refineries To War Production

CONVERSION of every possible piece of refinery equipment to war production was aimed at last week in a nation-wide program launched by OPC on the basis of plans prepared by Assistant Deputy Coordinator Bruce K. Brown.

Announcing the program August 17, Deputy Coordinator Davies explained it was the outgrowth of comprehensive studies by the oil agency and the industry which resulted in the discovery of operating techniques by which idle or partially used equipment could be adapted to the production of such war materials as 100-octane aviation gasoline, toluene and raw materials for synthetic rubber.

As outlined by Brown, natural-gasoline plants and equipment for manufacturing any other petroleum product which is available in the industry will be taken into the plan, as well as refineries.

"In view of the great public interest in specific processes sponsored by various individuals and companies, we think it appropriate to state at this time that as we envisage the program it will embody two main types of processes:

"(a) The revision of petroleum-refinery equipment using existing cracking units as nuclei for the production of war products, and other existing refinery equipment as nuclei for the various purification steps involved, and

"(b) The utilization of equipment available in the natural-gas gasoline industry for the production of war products and for the purification of such war products.

"Catalytic processes for the production of butadiene from butane appear to us to be adaptable to the refinery conversion program," he continued, "and we anticipate receiving and approving proposals of this type as well as proposals involving the conversion of cracking units.

"This office is willing to give informal advice which may be of help in completing proposals and will be glad to receive advance information as to proposals in course of preparation. However, no decision can be reached by this office as to any specific proposal until it is complete and no effort will be made to 'save a place' in the program for any refiner who is delayed, for any reason, in submitting a complete proposal.

"Particular attention is called to the fact that the bottleneck in the refinery-conversion program will probably be the availability of existing equipment to purify the products rather than the availability of equipment to make them. Strenuous technical effort is being expended to attempt to improve the situation with respect to purification of products including butadiene, benzene and toluene. Proposals relative to the purification of products are just as important, perhaps more important at the present time, than are proposals to make such products, and refiners are invited particularly to look into the possibility of entering the program from

[*Continued on page 40*]

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FUEL OIL: Price Administrator Leon Henderson submitted a half-dozen proposals for dealing with the eastern fuel oil shortage to WPB August 18 as officials of the latter met to discuss next winter's possibilities.

The proposals ranged from consumer rationing to curtailment of supplies to dealers, who would be made responsible for equitable distribution among consumers.

After a survey of the OPA suggestions, WPB Director Donald Nelson decided to turn them over to a small committee with authority to choose those which appeared to offer most hope of alleviating the effects of the shortage.

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TANK CARS: At least 600 trains comprising 30,000 tank cars are moving weekly, half of them loaded for Eastern destinations and the other half returning to the southwestern fields, it is estimated by the Office of Defense Transportation.

The ODT's figures indicated that its program to develop a solid-train oil movement inaugurated a few weeks ago already has progressed to the point where the great bulk of the Eastern rail delivery is made in this manner, and plans now are being perfected to round up the small shippers to bring their production also into the train-lot movement.

There is some doubt, however, as to how much higher weekly deliveries can be raised over the more than 800,000 barrels a day without running into a shortage of motive power. Lack of locomotives, rather than lack of cars or track space, is looming as the bottleneck of the railroad situation, not only with respect to oil but in the movement of all other commodities.

In another move to increase the Eastern supply, ODT on August 17 assumed emergency control over all domestic waterway bottoms capable of transporting liquid cargo in bulk and set up a permit system designed to give ODT direction of the movement of oil and products in Great Lakes, inland waterway, coastwise and intercoastal shipping.

The order will become effective September 10, and under it the agency will have authority to direct any vessel com-

ing within the scope of the order to be moved to such points as may be specified to load, unload or transport cargo to such points as ODT may require.

The order, however, will not apply to vessels carrying oil and products in a general northerly and easterly direction, but will give control over boats moving oil in the direction opposite to the desired flow, such as westward from New York on the New York barge canals and southward from New York and Philadelphia on the inland waterways.

☆

RUBBER: Disclosing that plants already in existence will be able to produce as much butadiene as will be needed for the government's 877,000-ton synthetic rubber program, Secretary of Commerce Jesse H. Jones announced August 18 that the proposed Gary, Indiana, butadiene plant planned by Standard Oil Company (Indiana) would not be built at this time.

Jones said that suspension of the project, which called for the world's largest butadiene plant, with a capacity of 100,000 tons a year, would result in a "very substantial saving of critical materials" without reducing the WPB rubber program.

At the same time, WPB reported that the more than 450,000 tons of scrap rubber collected by the oil industry in its recent round-up is moving to central receiving depots and rubber reclaiming plants at the rate of 4000 tons a day.

☆

PLANTATION LINE: Extension of the Plantation pipe line from Greensboro, North Carolina, to a point near Richmond, Virginia, where 30,000 barrels of products are to be delivered daily for transportation to Eastern consuming centers, was approved by OPC August 21.

Arrangements for extension of the line are being worked out in New York with a view to getting the project under way without loss of time.

Deputy Coordinator Davies disclosed that it has been agreed that the extension should be undertaken as a government project, and negotiations will be initiated with Reconstruction Finance Corporation for the $3,000,000 which it is estimated will be required, as soon as the pipe line managing committee completes its work.

Davies explained that the extension will use about 165 miles of second-hand, eight-inch pipe, which it is believed can be obtained by digging up existing lines now either idle or only in partial use. Less than 100 days will be required for actual construction of the line after the necessary materials are obtained, it was said.

With the extension in use, most of the refined products moving through the line would be trans-shipped by barge to Washington, Baltimore, Philadelphia and Trenton, with some oil being consumed locally in the Richmond area. Two related projects designed to increase the capacity of the line to Greensboro from 60,000 to 90,000 barrels daily are all under way, it was said. Contracts for construction of a 60,000-barrel feeder line from Beaumont, Texas, to Baton Rouge, Louisiana, were awarded August 13 and construction has started. Bids have been received on the pumping stations and purchase commitments are being made. (See page 48.)

PIPE PROGRAM: An interim plan for the emergency movement of 15,000 barrels of products to the Atlantic Coast pending completion of the Fostoria-Akron pipe line was announced by OPC August 22.

Under the plan, Great Lakes tanker or barge transportation is authorized between Toledo and Cleveland to permit the "earliest possible utilization of pipe-line facilities now being rearranged, expanded and extended in Indiana, Ohio and Pennsylvania," it was explained.

OPC officials said that preliminary surveys and other engineering details of the 100-mile Fostoria-Akron line are now being developed. When completed, the line will link the Shell and Standard (Ohio) systems with the Sun-Susquehanna at Akron, making possible de-

[*Continued on page 35*]

Farish Upholds German Patent Deal As Great Help To United States

SHARPLY criticizing the Department of Justice for raising an "imaginary chemical cartel" and in charging that his company's operations in various fields were designed to suppress competition, W. S. Farish, president of Standard Oil Company (New Jersey), in another of his now periodic appearances in Washington, told the Senate Patents Committee August 19 that "half of the bombs we are dropping on Japs and Nazis are made possible by the research based on the contract with I. G."

"In 1927 we could not foresee 1942," Farish pointed out. "But if in 1927 and 1929 we could have read the future, if we could have known that the Japs would strike Pearl Harbor on December 7, 1941, we would have been even more anxious than we were to sign those contracts to permit us to weave into the technical knowledge and experience of the industries of our country a large part of the technical advances of modern German science."

The agreements which have been assailed by the Justice Department as against the best interest of the country, he said, gave the United States:

The first process for producing 100-octane aviation gasoline;

Synthetic toluol, the basic ingredient of TNT;

The most modern and efficient methods and apparatus for the manufacture of synthetic ammonia, the other ingredient of TNT, from natural gas;

Paratone, which greatly improves hydraulic and recoil oils used in every fighting plane, tank, cannon and ship;

Paraflow, which freeze-proofs our best motor oils;

Buna rubber processes, which are the foundation of the synthetic rubber program;

Butyl rubber, potentially the most important of all synthetic rubbers;

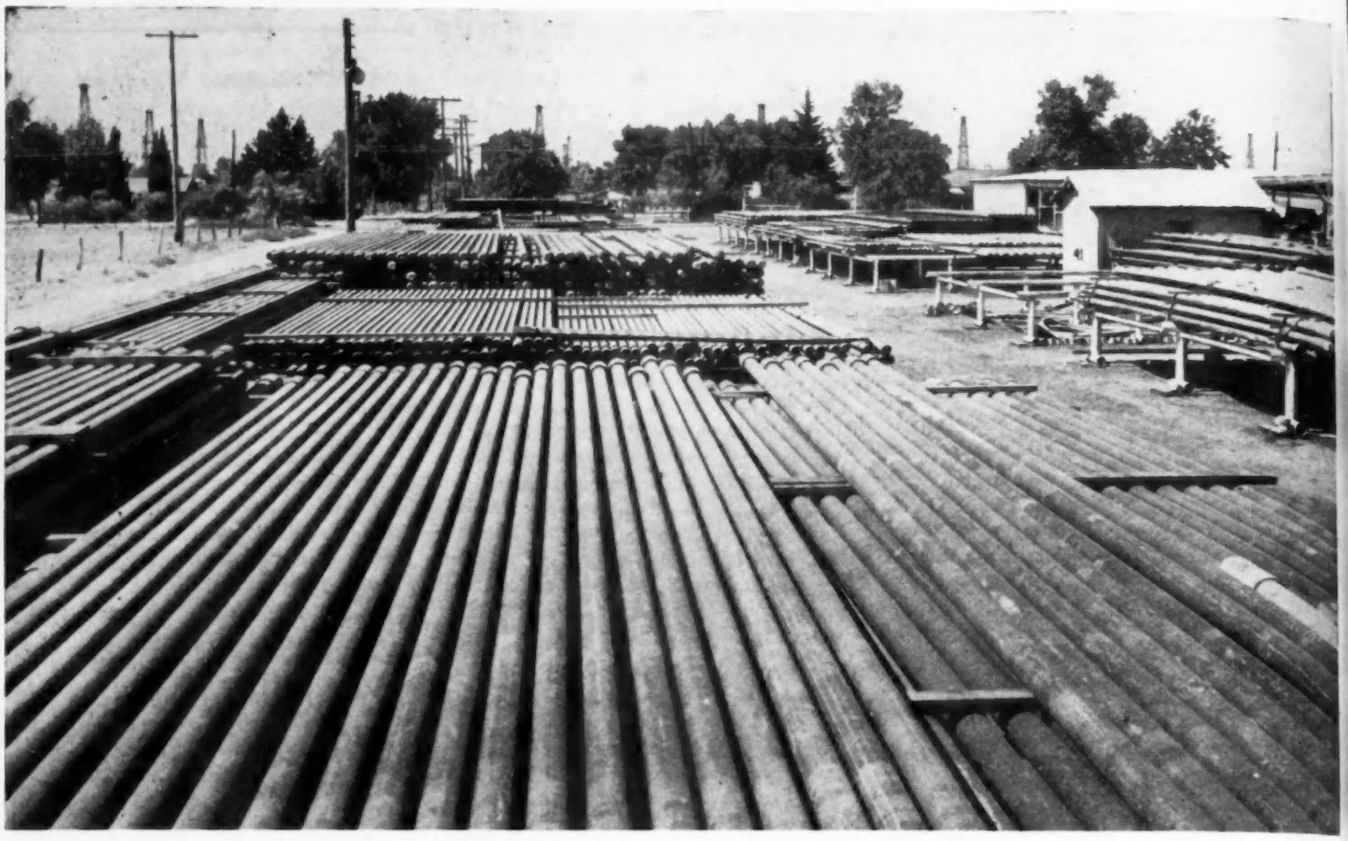
Vistanex, one of the special types of German synthetics, from which butyl was developed.

"What do you think Hitler would give today to be able to keep America from using these discoveries and processes?" Farish asked the committee.

Farish explained that the negotiations with I. G. Farbenindustrie, initiated in 1925, were undertaken at a time when the United States was attempting to encourage the new "Democratic Germany," ran through 1926, the year in which Germany joined the League of Nations, and resulted in the first agreement, under which Standard took over a half-interest in the oil hydrogenation process in the Uinted States, the year in which Germany dynamited all of the fortresses on her eastern boundary in accordance with the Paris agreement.

Standard officials foresaw that many unforeseen situations would arrive during the long term of the agreement—to 1950—and that it would be necessary to rely more on good faith than on legalistic interpretations if the partnership was to be workable, he continued, and the agreement was supplemented with an exchange of letters between the heads of the two companies—a declara-

[*Continued on page 40*]



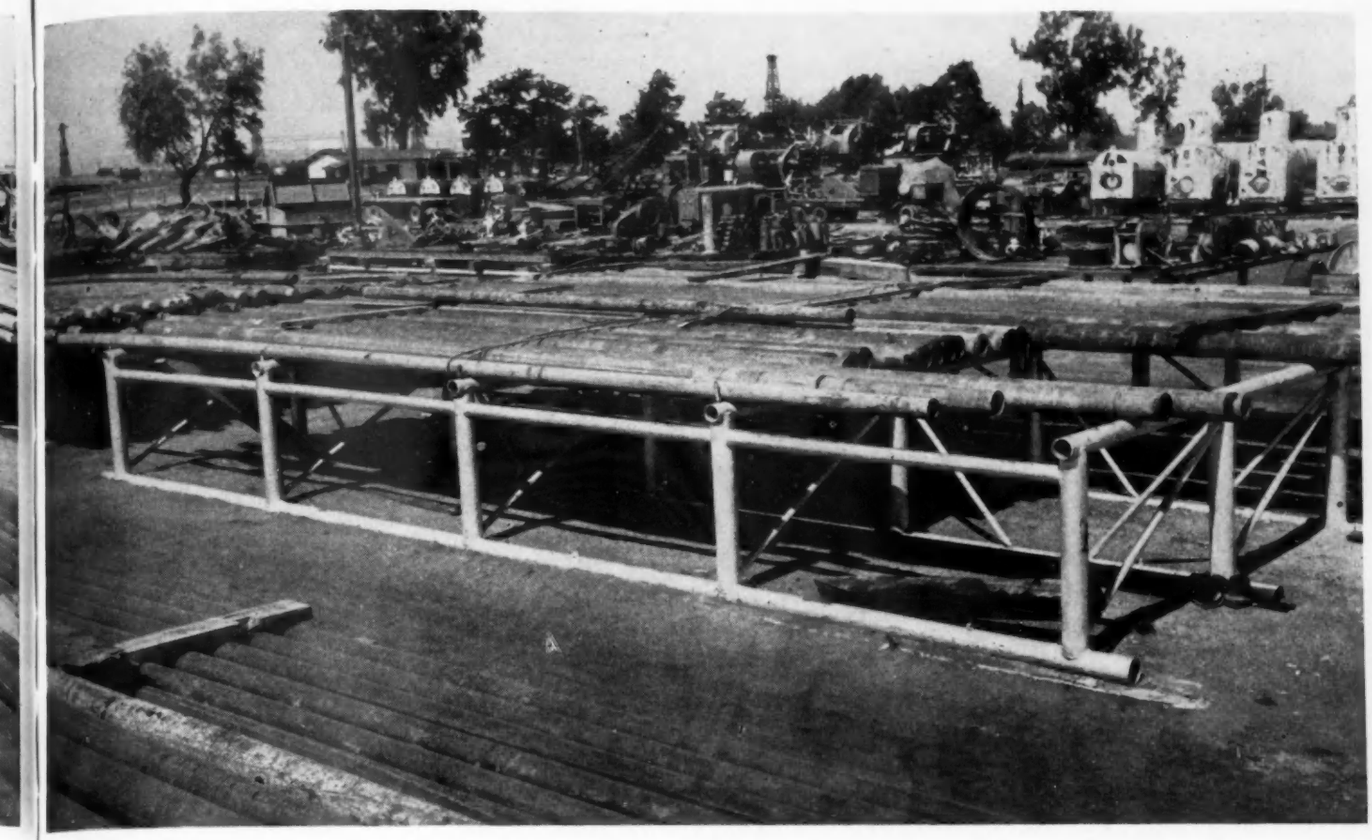
Big Modern Storage Yard Stacked Drilling

NEVER before in history of the oil business has it been so essential that equipment be handled and maintained with the thought in mind that certain replacement parts may not be available for sometime to come. This applies particularly to drilling contractors and operators, who not only face delays and troubles in buying additional parts, but are also currently being forced to stack numerous drilling rigs since the 40-acre minimum spacing ruling of M-68 became effective, causing curtailment of much proven field development drilling. Today the number of drilling rigs in operation in the United States is approximately one-third the total drilling a year ago. Proper care of these idle rigs is the best hope of keeping a sufficient number of machines in operation, and this at the same time contributes to the nation's fight against shortages of critical materials.

An example of proper care of stacked drilling rigs is the extent to which Bell and Loffland, Inc., California drilling contracting firm, has planned and outfitted its San Joaquin Valley equipment storage yard. Practically every piece of drilling equipment, from the draw works down to the drilling line and V-belts, is given a thorough going-over, repaired if necessary, then placed in storage in such a way that it will be well preserved yet be immediately available whenever it may be called upon for further use.

Draw works, boilers and mud pumps are neatly stacked in one portion of the yard in such a way that they will not become separated, thus assuring that all previously-mated pieces will be sent out on a new job as a single unit; a systematic and orderly scheme is carried out in racking and treating of all drill pipe, drill collars and kellys on well-designed pipe racks; tool joints are removed and given a thorough overhauling; subs, adapters, fishing tools and similar small tools are cleaned, painted, and stacked in orderly rows along a specially-designed rack; all sand lines and drilling lines brought in from the job are efficiently cleaned, lubricated, measured and generally checked over in a single operation through use of an unusually efficient portable shop-made machine; and all small tanks used for storing drilling mud and water at the well are thoroughly cleaned and painted, inside and out. One of the most recently installed features of the yard, and one whose importance cannot be over-estimated at this particular time in view of the current rubber shortage, is a large, cool, air conditioned "potato cellar" in which is stored rotary hoses, belts of all kinds, cordage and other such perishable goods.

One section of the yard is set apart for all heavy equipment such as the draw works, boilers, mud pumps, shale



Stresses Prolongment of Equipment Life

By GILBERT M. WILSON, Staff Writer

shakers, and the skid-mounted racks containing the miscellaneous items such as fittings, manifolds, supports, sheet iron, etc. A small roadway traverses the length of this section of the yard, and the units are stacked up along either side. The skid-mounted boilers are arranged side-by-side in an orderly fashion with their fire boxes facing the roadway, leaving sufficient room between them to allow men to get between them in order to install or repair insulation, repair fittings, regulators and paint the exterior.

Several feet from the last boiler in the aisleway the draw works equipment is spotted. Behind and beside this unit are grouped the other units belonging to this particular drilling unit, such as pumps, shale shaker and miscellaneous equipment racks. As soon as these pieces of heavy equipment are brought in to the yard they are thoroughly cleaned with the aid of a small steam cleaning unit that may be towed to any point in the yard. A strong chemical solution used in conjunction with the cleaning unit quickly cuts and removes accumulations of oil, grease, and mud. During subsequent slack work periods, the equipment is overhauled, painted and generally prepared for possible use on short notice or being laid up for an extended storage period.

Wherever possible except where replacements have been made, every piece of equipment that was part of the original rig, is kept together so that when the unit is once more set up on a location, little time will be lost in assembling and pipe fitting.

When a load of drill pipe is brought in from a well, it is first cleaned of all mud cake both inside and out. The interior surface is cleaned with the aid of an air nozzle operating under 120 pounds pressure. The nozzle which effectively blasts out the mud cake particles, has a long extension handle to permit running it from one end of the pipe to the other.

Following this preliminary cleaning to remove the dried-out mud, the pipe is cleaned inside and out with the steam cleaning unit, particular attention being paid to tool joints and collar threads. It is then carefully inspected, and defective portions of threads or collars are marked with a distinctive color of paint. Red paint indicates that the collar is swelled out, while yellow means that it must be refaced.

All pipe stored on the racks is sprayed inside and out with a coating of com-

Pipe rack skids made out of salvaged material, safely speed up loading and unloading of drill pipe. Placement of horizontal stringer of drill pipe of the rack leaves room for convenient setting of the pipe skids.

mercially available rust-preventing dope. Effectiveness of this coating is demonstrated by the fact that some lengths of pipe which have been on these outside racks for the past two years, are still in excellent condition, with no rust yet in evidence.

Tool joints that need attention are removed from the drill pipe and stacked up in neat piles. Threads and shoulders are cleaned and smoothed down, and the tool mark cuts in the body of the joint are dressed down.

Special Rack for Subs

Storing and handling of small tools such as adapter joints, certain small fishing tools, and all sizes of subs, is facilitated by the use of a novel, but efficient and inexpensive tool rack located on a roofed-over portion of the loading platform. Six lengths of pipe, grouped together in pairs and welded to A-legs in the center and ends, were prepared and set up in such a way that all such heavy tools can be stood up with the assurance that they will not topple over, yet are easily accessible at all times. The center rack, built up higher than the other two, was designed chiefly for racking of the longer, heavier tools.

A number of evenly spaced cut-outs, of approximately 6 to 8 inches diameter, were made with a cutting torch along the outer side of the pipe railing in which are "cradled" the bodies of the heavy tools. On the other two lower racks, instead of using cut-outs, short 1-inch stubs of sucker rod material were welded at 6-inch intervals along the length of each of the horizontal pipe rails. The shorter and lighter tools are leaned up against these smaller racks, the short stubs preventing them from skidding and falling over sideways.

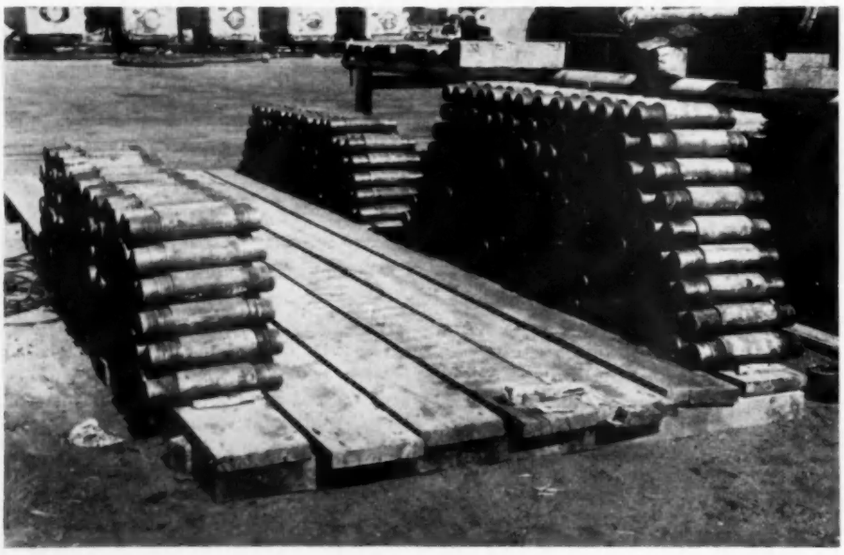
Not only is less space taken up by this system of racking, but the various sizes, types of tools and those most frequently used, may be roughly classified and segregated to bring about more efficient handling of the material.

To simplify lifting and moving the longer, heavier tools about the platform, a special 2-wheeled, rubber-tired buggy was built up out of miscellaneous pipe and steel plate. Approximately 4½ feet high, the hand cart is similar, but narrower, than those commonly used in warehouses, but in addition, it has two half-circle cradles into which the tool can be rested and chained in place while it is being wheeled about in a semi-erect position. With this buggy, one man can easily pick up, load and unload even the heaviest of these tools.

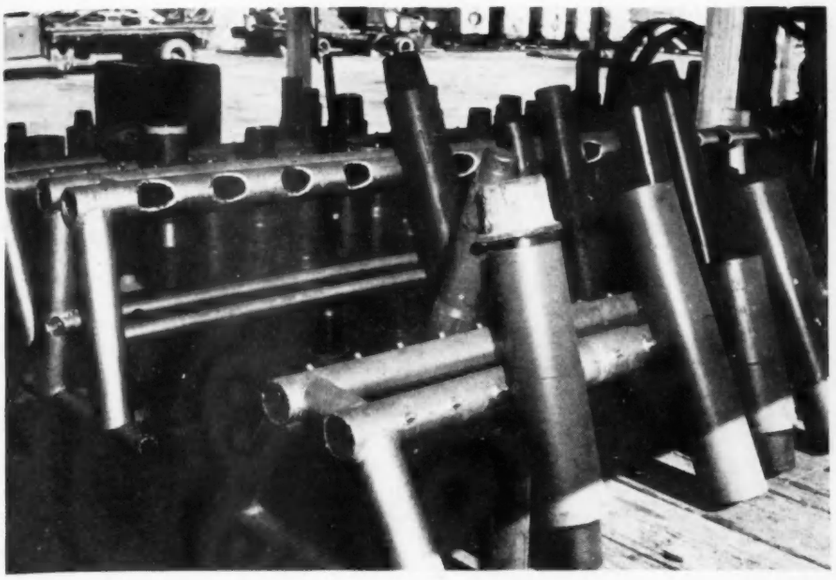
Drill Collar Storage Care

One of the most important considerations for the care and preservation of kellys and drill collars is that of the rack on which they are stored. Frequently, these costly and critical parts of the drill string are given a permanent kink or bend through carelessness in providing a sufficiently level and sturdy rack on which they are stored. In most instances, these heavier joints require a rack having a sturdier underpinning and bracing than required for drill pipe racks, in order to eliminate possibility of its gradually settling under some of the legs, and throwing a kink into some or all of the joints on the rack.

The kelly and drill collar rack used by this company was specially designed to support, in an absolutely level position, the much greater load of these joints. To save yard space, the rack was built L-shaped, the longer section accommodating the 50-foot and longer joints, and the shorter, lower end of the rack handling the 30- and 40-foot joints. Longitudinal base members of the rack are of 6-inch drill pipe, and these in turn are bolted to a 12-inch square



Tool joints are removed, steam cleaned, neatly stacked up, and thoroughly checked for possible weak points. Threads and shoulders are dressed down, and the shank is smoothed of deep tool mark cuts.



Cut-outs along the side of the center rack hold the longer, heavier tools, and the shorter racks have stubs of sucker rod material welded at 6-inch intervals to prevent the tools from falling over and to speed up classifying and handling of the equipment

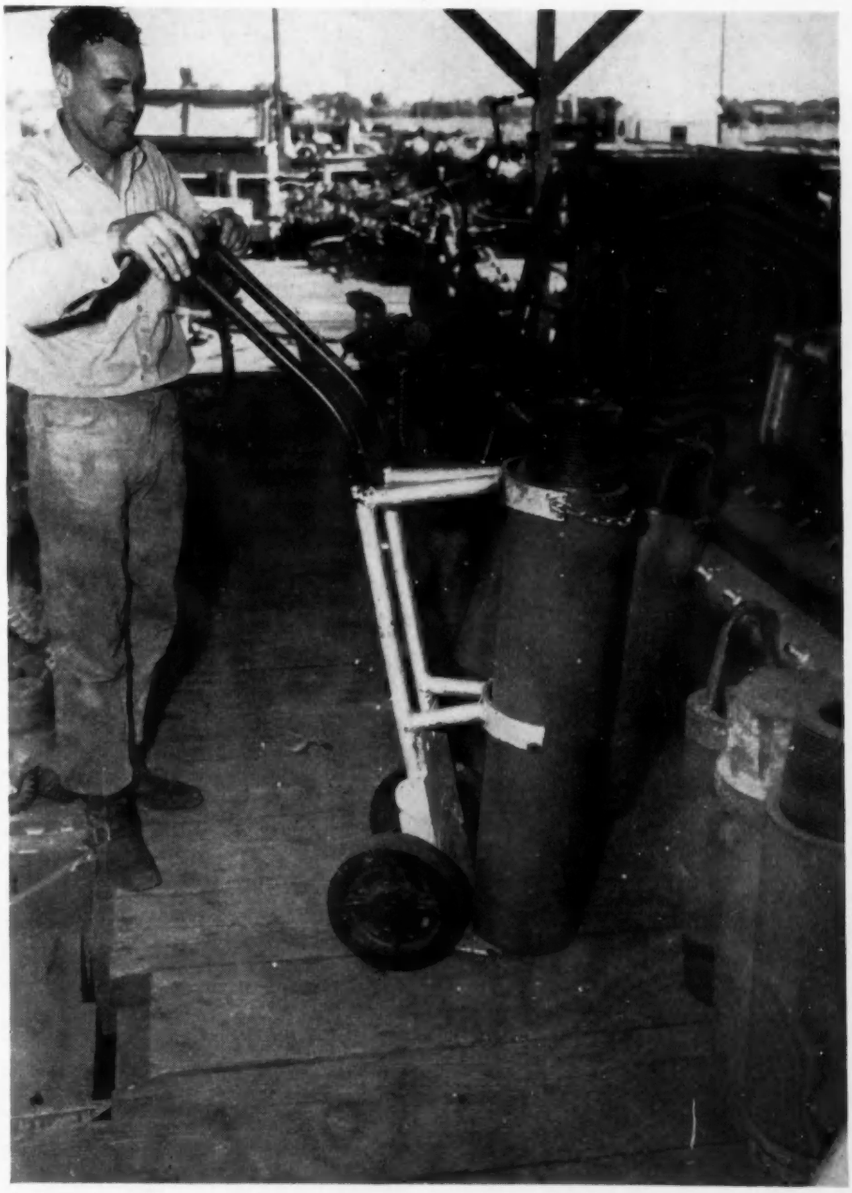
This narrow, shop-made hand pushcart (below) simplifies handling of heavy subs, adapters, etc. Curved cradles are purposely placed so that the tool will lean over slightly so that the latter can be picked up and re-deposited easier.

stringer of concrete, the top of the latter being laid out flush with the top of the ground. Six-inch uprights are welded to this base at intervals of approximately eight feet, and top transverse members of 5-inch drill pipe are welded to the vertical legs. Short cross-bracing between upper and lower horizontal members are of 2-inch pipe.

Up to 60 drill collars of all lengths have been stacked at one time on this rack, and although it is several years old, not one part of the rack has yet sagged or become out of line, despite the constant jarring sustained through much shifting of materials on and off the rack.

An additional feature that facilitates loading and unloading of joints is the placement of the upper longitudinal 5-inch drill pipe member on the driveway side of the rack. It is welded between the vertical uprights, approximately eight inches below the level of the rack surface. This permits the placing of an 8-inch skid to allow rolling the drill collars directly on or off the rack without lifting up or rolling them off a small drop.

The slight additional care exercised in laying out such a storage rack will result in extensive savings in these costly materials, particularly when it is likely that the majority of the joints probably will have to remain there until full-scale drilling operations can be resumed once more. Any sagging that should develop in the rack might go undetected for several years, resulting in the permanent kinking of many of the joints.



Line Spooler and Lubricator

One of the most frequently used and indispensable tools developed by this company and used in this storage yard, is a shop-made, combination line spooler and lubricator. In a single operation,

With this three-piece shop-made unit, shown dismantled in the photograph, a spool of line can be measured, inspected for kinks, splices, etc., scientifically lubricated or oil treated, then rewound on another spool, all in a single time-saving operation. Small object in foreground is footage counter; long tube at left is lubricator; and spooling unit is shown mounted on its skid base.

any size line of any length can be measured, inspected, cleaned, scientifically lubricated or treated, and spooled on to another reel, either in the yard or on a job in the field. The complete assembly consists of three separate and demountabel units: (1) the rack or axle on which the spool is turned; (2) the 16-foot lubricator tube; and (3) the footage counter.

The frame work which supports the wire line reel is skid-mounted and was made up of sections of 5- and 3-inch drill pipe. Mounted along the top of this framework is a horizontal shaft of 3-inch drill pipe that passes through the center of the reel on which the line is to be spooled.

Two tapered mandrels also on this shaft, are used for accurately centering the spool. One is free-moving to permit handling of any width spool, while the other, that nearest the sprocket end of the unit, it partially fixed, in that it has only a limited travel along the shaft, and that tarvel being along a threaded interval of several inches.

When the spool is set up on the unit, the movable mandrel is shoved into the shaft opening on the spool as far as possible, then cinched into place with three set screws. The threaded mandrel on the other side of the spool is then run up, and with the leverage aid of three 12-inch handles, it is screwed up snugly into the center of the spool. A smaller 3-pronged jam-nut running on the threads in back of this second mandrel is used in lieu of set screws to lock the mandrel in place against the body of the spool.

The 3-inch drill pipe shaft on which the spool rests is fixed, and does not rotate with the spool. The sprocket wheel shaft, of approximately the same diameter as the I.D. of the drill pipe, merely extends into the end of the drill pipe a short distance. A steel dog, welded to a collar locked on this free-moving shaft, is the means of revolving the spool. A short chain fastened to this dog terminates in a flat steel loop which is bolted to one of the staybolts that project out from the side of the spools. Rotating the sprocket wheel causes the spool to be turned about the fixed axle through the pull of the dog on the spool staybolt.

In operation, the unit is mounted on a truck bed, where the chain drive is connected to a sprocket-equipped winch. Taking power off the truck winch in this manner provides a flexible wide range of speeds for operating the unit.

Before the line is wound on the spool, it must first pass through the footage counter, then through the lubricator tube. The former consists of a small steel framework on which are mounted three small sheaves, all in line with the direction of travel of the wire line. The two outer ones are mounted in fixed supports, but the position of the center one may be adjusted up or down by a center adjusting bolt to suit the size and condition of the line, and the degree of pressure required to actuate the footage counter meter mounted on one side of the assembly base. While sand lines represent the greater proportion of the lines handled with this unit, it can be adapted equally as well to heavy drilling lines.

The lubricator, through which the line passes immediately after going through the footage counter, consists of a 16-foot length of 3-inch tubing which is kept full of liquid lubricant or a line preservative. Both ends of the reservoir are sealed off around the line by packing glands. Near one end of the lubricator is a 2-inch collar welded into the 3-inch pipe to make a filler neck. A bull plug provided with sucker rod handles serves as a leak-proof plug. Two ears welded to the body of the pipe serve as tie-backs which are used to hold the lubricator back as the line drag tends to pull it toward the spool.

Under normal circumstances, the unit is set up some 100 feet away from the reel off which the line is being taken. This permits the line to straighten out and become easier to handle as it approaches the take-up spool, and the interval of open line simplifies checking for breaks, defects or kinks. Any speed may be obtained through use of the truck winch power take-off. Thus on an old line more careful inspection will be required, while a newer line can be speeded up.

Loosening Wire Strands Aids Lubrication

In addition to accurately measuring the line, the small footage counter performs still another important function. As the line passes over the first small sheave, down under the second, and on up over the third, it is momentarily given a sharp two-way bend which effectively breaks out rust, dry mud and any gritty foreign particles. It loosens and opens up the strands of the line so that when it passes through the lubricator, the individual strands will be sufficiently spread apart to permit the fluid to penetrate into the core of the rope, lubricating and preserving far more than just the outer or exposed surface of the line. This factor is most important to the preservation of wire line, particularly at this time, when numerous spools of line will be coiled up and then remain untouched probably for several years. Ordinary "painting" of the line with lubricant, as is often done, might prevent rusting of the outer surfaces, but it contributes little to the preservation of the rope core, nor do the small individual strands get lubricated sufficiently to move and flex freely when the line is once more put into service.

As the line is being spooled, a complete record is made of it. Kinks, flat places, wickers, splices, and general conditions are noted, and this information, together with the exact footage of these points, are carefully recorded, then placed in an envelope and attached to that spool. A field man requiring a wire line of particular qualifications can, in the event of an emergency or during the temporary absence of the warehouseman, inspect the full spools on hand by checking the data contained in

the envelopes, and he can be assured of getting exactly the type of line adequate for his needs.

Typical of the tangible savings made possible through the use of this assembled unit—aside from the considerably increased value given to the line in extending its useful life—may be seen in the following data:

To treat and spool a typical 8000-foot sand line by hand would take six men approximately six hours. With this equipment, it ordinarily takes only two men approximately two hours to do the same job. In addition to being able to do a better job on the line, the spooled line is weatherproofed for storage in the yard, and it is always ready and available on a moments notice if a line of that length or quality is needed in the field.

Storage of Rotary Hoses, Cordage

Another important phase of warehousing that is receiving particularly close attention at this time is the storing and preservation of all rubber, and rubber composition goods, including rotary hoses, drill pipe protectors, rubber-impregnated belting of all kinds, cordage, and other perishable goods.

A novel and practical innovation in the construction of special shelters in which such materials may be stored recently was completed by this company in one portion of their storage yard. In this particular area of the San Joaquin Valley the high level of the water table stands some nine feet from the surface, so it was devided to excavate down to within one and a half feet of the water, then construct a large, sturdy air conditioned storage building — one that would remain cool and dry during even the hottest months of the season.

Built up almost entirely of junk materials, the structure measures 20 feet wide, 30 feet long and has an inside ceiling clearance of 10 feet. The above-ground portion of the building was covered over with a 3-foot thick embankment of earth.

Floor joists were made up of lengths of 5-inch drill pipe placed several feet apart and laid on and parallel to as many 2 by 12 planks laid flat on the ground. Flooring of similar planking was laid on top of and transverse to the direction of the drill pipe. Vertical 10-foot sections of drill pipe support the ceiling, and are welded to the floor and ceiling joists of the same material. A plank ceiling and sturdy walls, plus the earthen embankment make the enclosure well insulated and virtually weatherproof.

Entrance to the enclosure is gained through a short, downward-sloping ramp, leading into the rectangular room. At the foot of the ramp, a heavy 5-foot wide steel door is swung between two vertical drill pipe joists. Constructed 10 to 12 inches shorter than the actual height of the doorway, the door leaves an open air space above and below which permits a limited but sufficient circulation for the storage room.

To eliminate considerable weight in the door, yet not sacrifice strength that might be necessary to discourage thieves from breaking into the storeroom, the framework of the door was made of 2-inch pipe, then covered on both sides with flattened tank steel material. Welding and some bolting was used throughout the construction wherever possible in building this efficient storage room.

Miscellaneous Materials Maintenance

Equally careful consideration is given to many other minor but important items that are brought in and stored in the yard along with the larger drilling equipment items. The small, approximately 100-barrels size mud tanks, for example, are carefully handled to prevent injury to seams; are thoroughly cleaned out; and the bottoms, both inside and out, are given a heavy coating of asphaltic paint. To eliminate possibility of bottoms rusting out during prolonged periods of disuse, and to facilitate loading on to the truck bed, the tanks are kept on their side.

Rotary tables, crown and traveling blocks and hooks, are steam cleaned, reconditioned, painted, and stacked in convenient rows in the front part of the yard. Traveling blocks, incidentally, are always painted a bright yellow, as this color makes it considerably easier for the driller to estimate distance and the exact position of the block in the derrick during night tours.

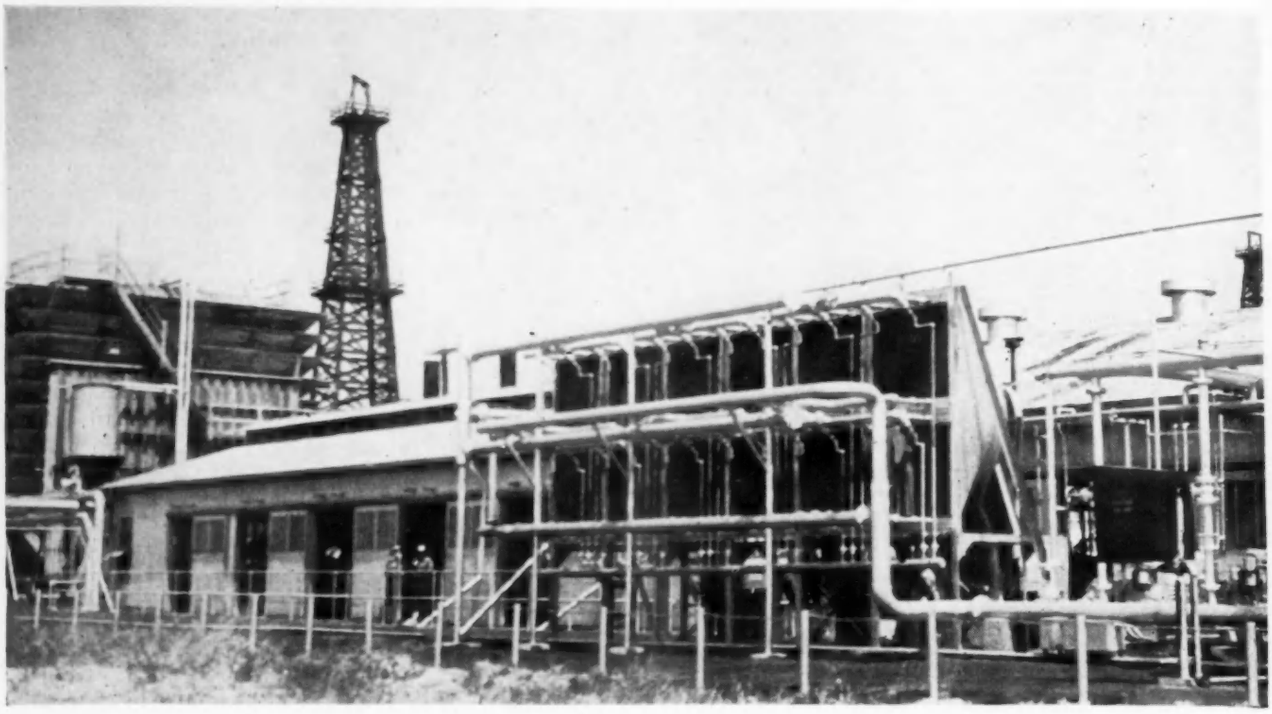
When rotary hoses are brought in from a job, but are scheduled to be sent out again soon—too soon to require going to the trouble of storing them in the underground storeroom—they are partially coiled up and placed in the shade under certain of the drill pipe racks. In this relatively cooler, more sheltered place, the hoses are not subjected to the direct rays of the sun, and life of the rubber hoses will be prolonged appreciably.

Oil-splashed and muddy V-belts, when brought in from a completed drilling job, are carefully washed in white (non-leaded) gasoline, wiped dry, and hung up in a cool, dry place until used again. V-belts are rapidly deteriorated by oil, and should be kept clean and dry.

Rotary chains are particularly vulnerable to attack by rust, so they must be thoroughly washed with gasoline or solvent, then covered with a heavy coating of lubricating oil or grease, wrapped in heavy paper or burlap, and stored in a dry place. A new and somewhat more convenient facility for storing rotary chains is soon to be constructed by the superintendent of this supply yard. It will consist of an all-welded steel box, similar to the steel tool boxes used on nearly every drilling rig, in which will be saved all clean and acid-free crankcase drainings that have hitherto been thrown away. After rotary chains have been washed, they will be coiled up and lowered into the oil, where they will be safe from corrosion almost indefinitely.

Certain of the mainteannce ideas contained in this yard probably are not new, and, with variations, doubtless have been used at various times by other operators. However, in war times, such efforts toward conservation of materials by the hundreds of major and independent operators must be all-out, and it is only by the constant checking and double-checking of small details, and training the company field personnel to becoming "conservation minded," that there can be any significant results achieved which might tend to brighten the present non-too-encouraging prospects for the immediate future of the development phase of the industry.

In this underground, naturally air-conditioned, 20 by 30-foot shelter are stored rotary hoses, cordage and similar perishable goods. Salvaged drill pipe and used materials were used almost exclusively in its construction.



Large Engines Cooled With Closed Jacket Water System

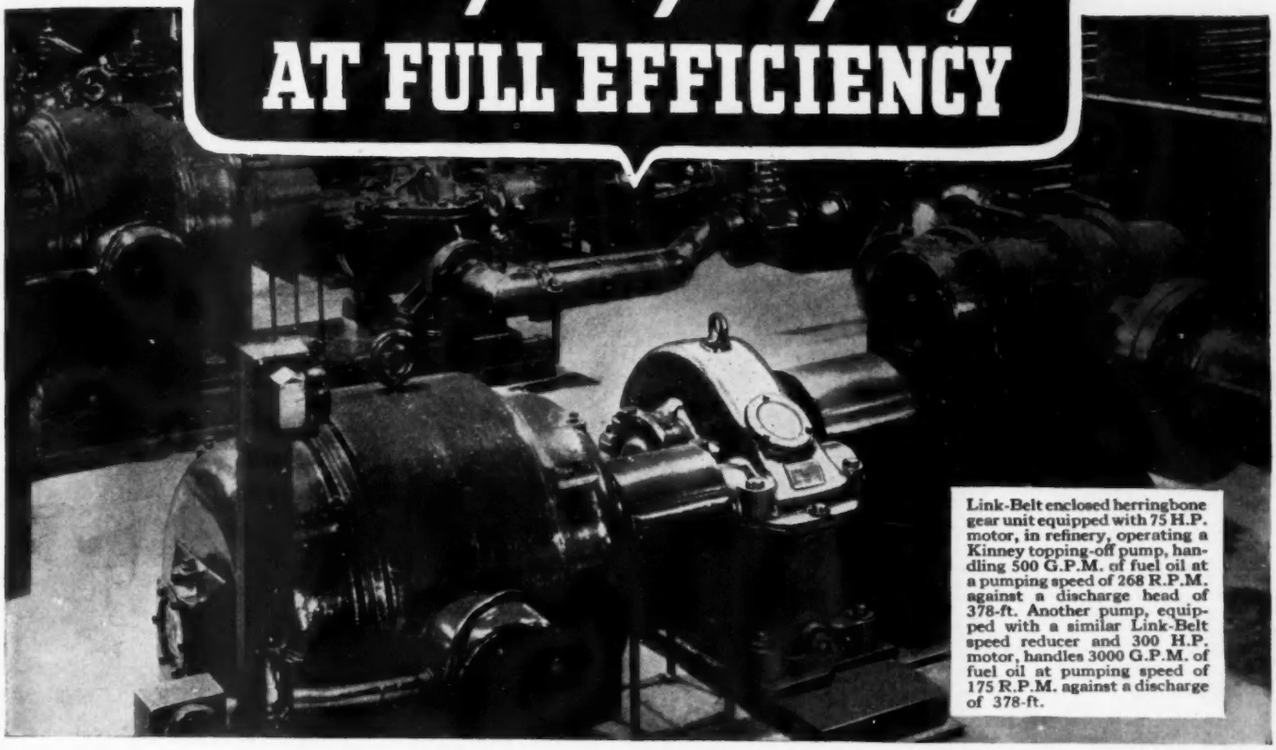
AN engine-jacket-water-cooling system, somewhat of a pioneering project when installed, has been effective for the control of operating temperatures and economical in water make-up requirements throughout its three years of operation. The installation is in a California gas-lift project where 5 horizontal twin-cylinder 170-horsepower, 4-cycle gas engines run constantly while delivering lift gas to the wells at 465 pounds, gauge, in the header from the second-stage compressor cylinders. The engines have 11½ x 20-inch low pressure cylinders taking dry gas from the residue system of a gasoline plant and 6½ x 20-inch second-stage cylinders which boost the gas to the desired lift pressure. Operating speed is 200 revolutions per minute.

In addition to the 5 horizontal twins is a sixth 170-horsepower engine equipped with compressor cylinder to deliver gas at elevated pressures for kicking off a difficult well which will not respond to the normal pressure of the system. Auxiliary power includes 3 6-cylinder and 3 4-cylinder vertical 4-cycle gas engines employed to operate water circulating pumps and forced draft fans in the cooling system. The jacket-water-cooling unit has capacity to handle the water circulated over all of these engines without exceeding the desired temperature, even during the most difficult days of summer.

The water-cooling system contains a 3-section radiator type unit, each section divided in two parts, superimposed with one entire face of the three sections covered with a sheet steel shroud equipped with 3 exhaust fans, each driven separately by one of the 4-cylinder gas engines through V belts and having provisions for maintaining the desired tension of the drive. Piping for directing the flow of water and gates to control the circulation are installed on adequate supports on the opposite side of the radiators where vent lines are included in the pipe work to drain sediment from strainer bowls in the water lines from the engine jackets to the radiators.

Included in the system are 3 end-suction centrifugal pumps, each connected directly without clutch, gear reduction or increaser to one of the 6-cylinder gas engines, which operate normally at a speed of 1,250 revolutions per minute. Governors are attached to the engines to maintain this speed but speed of the circulating engine and pump unit can be changed to suit conditions through a speed range above or below the normal. The suction header to which the centrifugal pumps are connected is attached at one end to the outlet manifold of the radiator unit and to a reserve, or surge water tank at the other which acts as a balancing unit to keep the flowing head of water above the

Correct SPEED *to keep 'em pumping* AT FULL EFFICIENCY

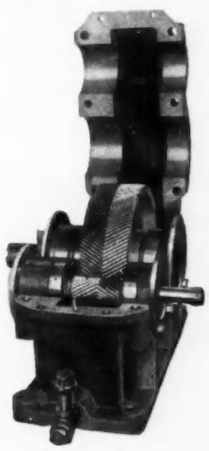


Link-Belt enclosed herringbone gear unit equipped with 75 H.P. motor, in refinery, operating a Kinney topping-off pump, handling 500 G.P.M. of fuel oil at a pumping speed of 268 R.P.M. against a discharge head of 378-ft. Another pump, equipped with a similar Link-Belt speed reducer and 300 H.P. motor, handles 3000 G.P.M. of fuel oil at pumping speed of 175 R.P.M. against a discharge of 378-ft.

● Link-Belt enclosed herringbone gear speed increasing and reduction units are outstanding in the field. Here are just a few of their many features:

Gears—continuous herringbone type—Sykes tooth form, using 20 degree pressure angle, 30 degree helical angle—involute teeth. Made of heat treated alloy steel forgings or electric alloy steel castings.

Housings—neat, sturdy, oil-tight, dust-proof—cast gray iron—of proper size to dissipate any heat generated within the thermal rating of unit.



Types—made in single, double and triple reductions up to 1000 H.P. Ratios 10:1 to 318:1.

Units are anti-friction bearing equipped throughout—with oversize bearings on the output to permit overhung loads. Leak-proof seals on high and low speed shaft projections keep grease in and dirt out. Complete data in 32-page Book No. 1519.

We also make Speed Reducers of the Worm Gear and Motorized Helical Gear types. Send for Catalogs Nos. 1515 and 1524.

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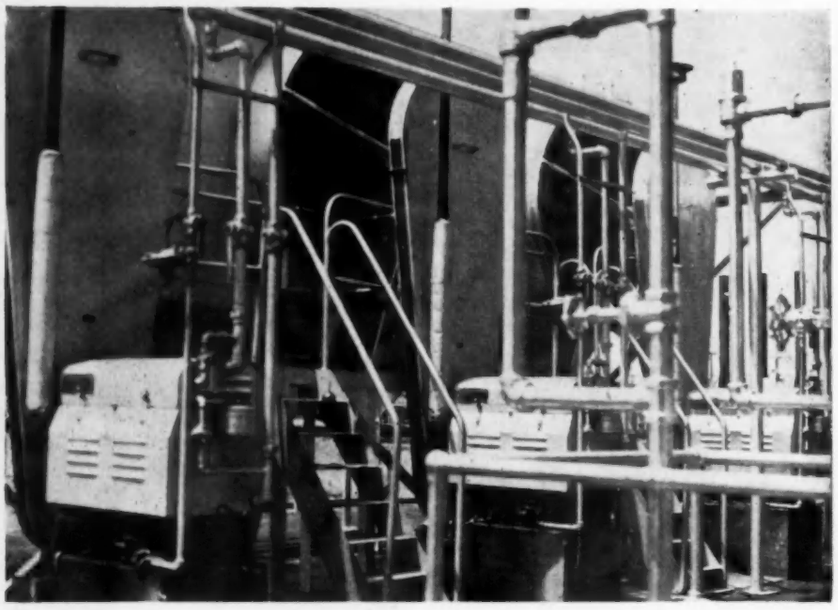
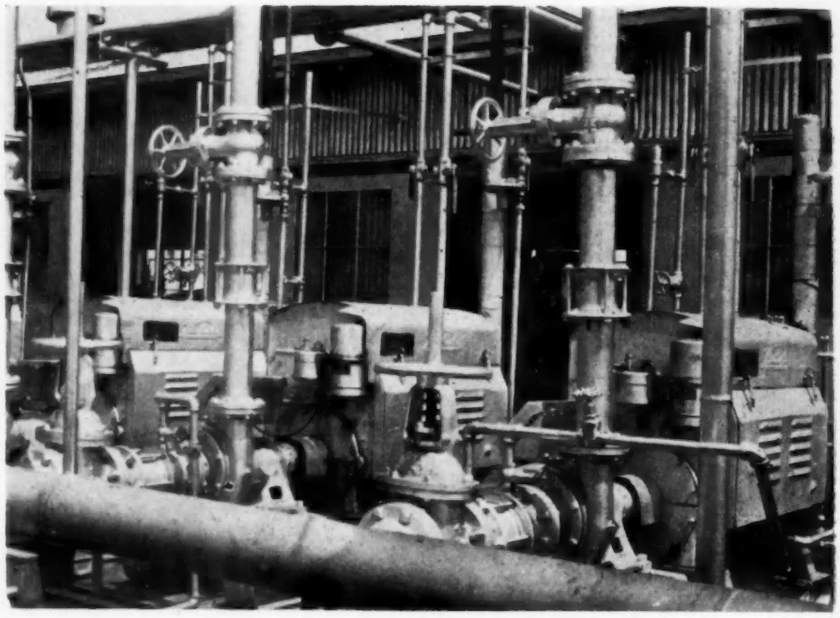


Individual four-cylinder gas engines, each attached to exhaust fan which draws air through cooling units.



***Right:* Water pump engines with piping from pumps to engine jacket.**

inlet connections and cover caps of the radiators. The flow of water from the gas engine power and compressor cylinder jackets is to the radiators through a manifold which is split to allow each section or part to receive water independently of the others, the outlet from each section or part being connected to the return manifold with gates to cut out any unit without disturbing the operation of any other.

Units Operate as Required

Suction is taken by one or more centrifugal, gas-engine-driven pumps as current operating conditions dictate, from the return header from the outlet of the radiators and the base of the surge tank, with the discharge of water flowing directly to the jackets of the engines. Only one set of pumps is required since the cooling system is closed and operates without a hot well or pit, and the pressure necessary to circulate the required volume of water is held normally at 30 pounds. Piping to distribute the water to the power and compressor cylinder water jackets is carried above the engines on supports attached to the roof trusses with risers which terminate in the inlet openings of the jackets at the usual point. Parallel flow is obtained so that water from the circulating pumps enters each jacket independently in order that the same temperature is used for each jacket individually and the entire combined installation receives freshly cooled water direct from the pumps.

The cooling water in this system is distilled from steam generated by a conventional oil-field boiler in an oil dehydrating plant nearby, without noticeable drain on the treating plant. The average quantity of water required as make-up in the cooling system is only about 10 barrels per week, most of which is necessary only to replace that which is drained when the sludge valves are opened on the drain lines attached to the water strainers and sludge pots. To counteract any corrosive effect which distilled water might have on steel and iron piping, fittings and water jackets, the system is charged with an inhibitor. No corrosion has been observed, and hose connections on the radiator sections are those originally installed, and no leaks have been found in the radiators or pipe connections.

Temperature of the water to the jackets of the compressor engines and the power cylinders, including the jackets of the multi-cylinder auxiliary engines, is controlled both by the quantity circulated and the number of fans running in the shroud of the radiator units. Temperature of the water returned to the jackets is held at or near 144° F. Temperature of water returning to the radiator coolers is held at or near 150° F., and is recorded on a chart for reference.

The shroud covering the face of the radiator unit is in three sections, but the base covers the entire unit, so that one fan will draw air through the fins and around the water tubes of all sections alike. But, if temperature conditions require additional air, more than one fan is operated. Since air may be recycled, or drawn, not through the radiators themselves, but through the fan opening, when one or more fans is down, blankets of heavy duck have been provided. These are tailored to fit snugly over the fan grille screen with hooks to keep them in position over the opening of the fan not in use at the time. Blanking off this opening has added materially to the efficiency of the unit by forcing the air to travel through the radiators, regardless of the position of the one in operation, at either end or in the center.

Under normal operating conditions one fan and two water pumps handle the water for all of the engines so that the desired temperature is maintained. When the temperature exceeds that set

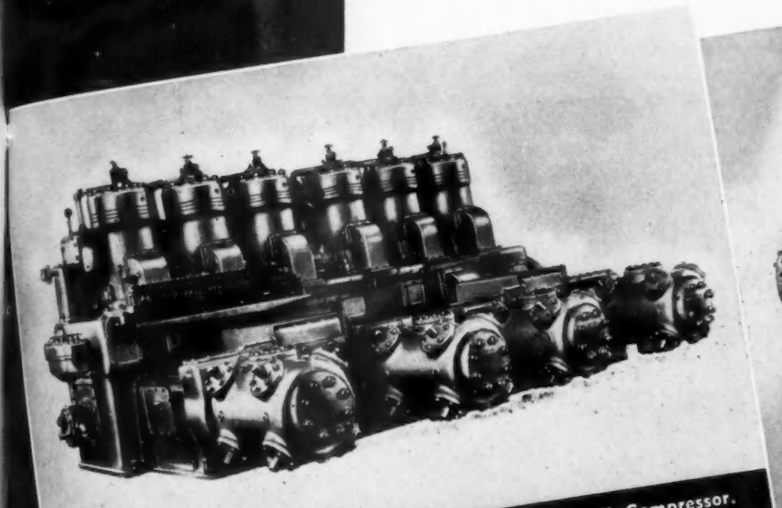
ram in 81 Days!

TO MEET the demands of the war steel production program, the Carnegie Illinois Steel Corporation recently required additional volume of natural gas for their mills in the Pittsburgh area. It was essential that the increased supply become available not later than December 15th, 1941.

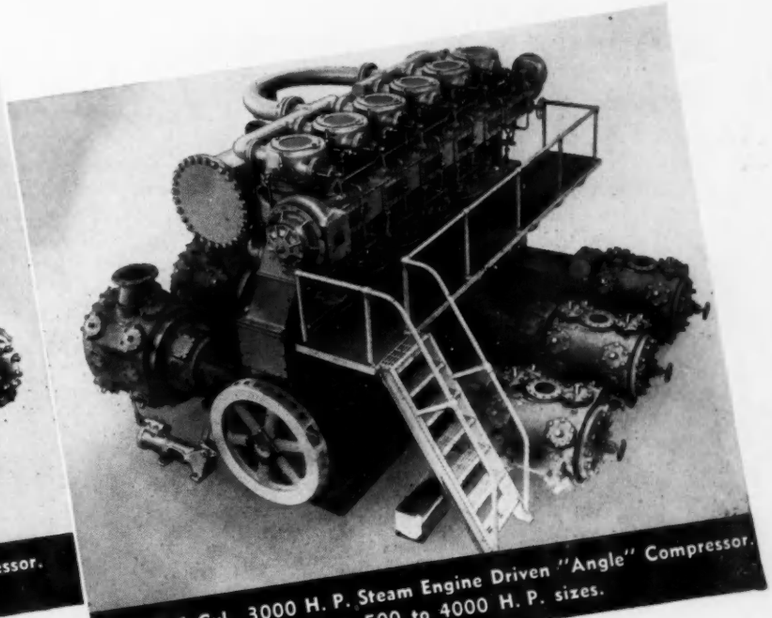
On September 16th, authorization was issued to construct an 1800 H.P. compressor plant on the United Fuel Gas Company's 16-inch line to the Pittsburgh area, — which would increase the line's capacity about 15 Million CF per 24 hours. The same day Clark Bros. received an order for the installation of three 600 H. P. "Angle" Compressors needed.

The station was completed and ready for operation December 5th, 81 days after the authorization was issued and 10 days ahead of the requirement. Special credit for this achievement was due D. S. Keenan, President of Carnegie Natural Gas Company, H. M. Baker, chief engineer of the United Fuel Gas Company, and the Clark engineering department.

CLARK compressors are in tremendous demand for such major war industries as high-octane gasoline production, explosives and chemical manufacture, etc. Clark men are doing their part to meet every requirement. If you need compressor equipment for war production, you can depend on it no stone will be left unturned to make delivery ahead of schedule.



CLARK 6-Cyl., 600 H. P. Gas Engine Driven "Angle" Compressor. Offered in 200 to 1000 H. P. sizes.



CLARK 6-Cyl., 3000 H. P. Steam Engine Driven "Angle" Compressor. Offered in 500 to 4000 H. P. sizes.

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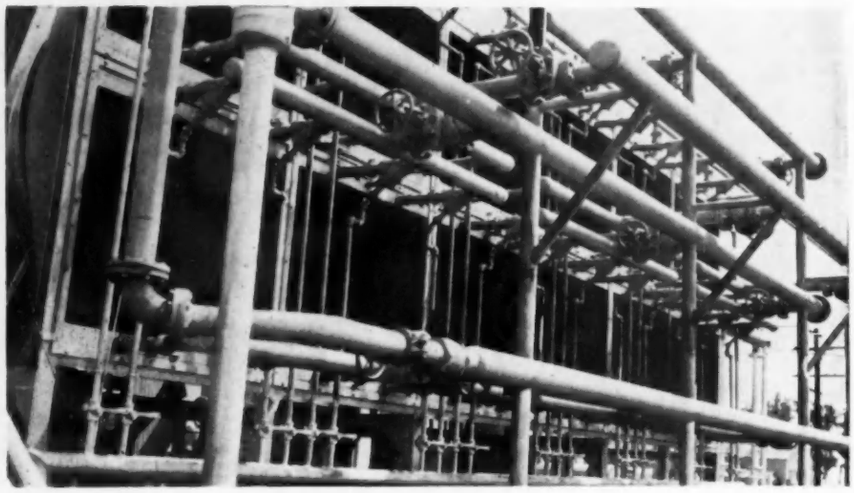
CLARK



Piping behind coolers to direct water to and from cooling units. Cooling air flows around piping and into cells of radiators.

up as most efficient a second or third fan is started running to balance conditions. On the other hand, if the returning water is cooler than desired, certain fans are shut down and the shroud openings closed. If the water temperature is still too low, one of the circulating pumps is stopped. In any event, the quantity of water being pumped to the water jackets and the number of fans operated are balanced to obtain the desired water temperature. As a convenience, the center fan in the radiator shroud is operated most of the time, and both end pumps run with the center unit held in reserve.

It is generally conceded that a small differential between inlet and outlet water temperatures is more effective than a cold inlet and a hot outlet.

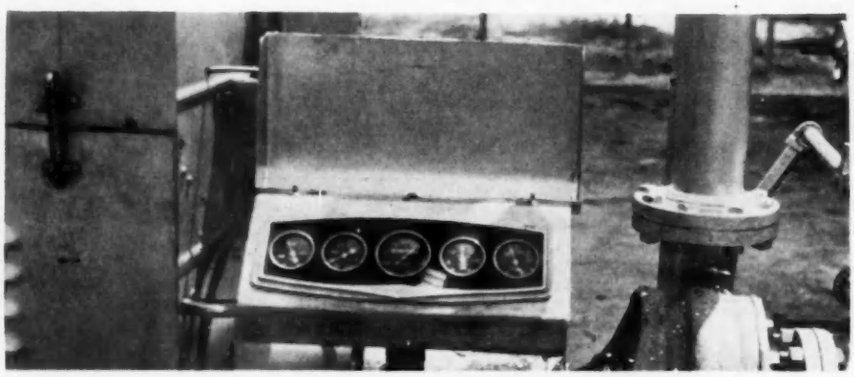
Efficient Operation

The compressors in this engine room were installed three years ago and at that time this type of cooling was built to care for jacket water temperature control. Only this spring were the engines given their first overhaul to put them in first-class operating condition again. After over 1000 days of continuous running, only six power rings were replaced, which averages one-half ring per power piston. Returning the original rings to their respective ring grooves was not done because of scarcity of equipment and replacement parts alone, but was done because of the small amount of wear of the cylinder walls and the ring faces.

The small amount of cylinder wear is probably the result of temperature of the circulating water, the kind and quality of rings originally installed, and the kind and amount of lubricating oil used in the force-feed lubricators. To state that the small differential of temperature between the inlet and outlet on the cylinders was alone responsible for the extraordinary service obtained with these heavy engines would be to ignore other probable contributing causes. Upon reasoning out the effect of temperature on lubrication, distortion and creep of engines, it is obviously certain that, if an engine is shut down for any length of time, it has a tendency to become colder as time is extended. To place a full load on this cold engine after starting creates stresses in all parts of the machine which undoubtedly have an injurious effect, not only on the rings, but on every other rotating and reciprocating part of the machine. In this engine room, if it is necessary to shut one of the compressor engines down for work which does not include breaking into the water system, the 150° water is left running through the jackets as if the unit were on the line and pulling a full load. Consequently, when it is started again, the jacket temperature is normal, lubrication is spread evenly over the face of the cylinder walls, and a load can be placed on it much more quickly and with less injury to any moving part.

The multi-cylinder engines which drive the exhaust fans and pull the centrifugal pumps are serviced regularly. Each 10,000 "miles" the engine is shut down and the spark plugs cleaned and adjusted. The valve tappets are spaced to the required clearance, and the magneto points checked for the recommended gap. Each 8,000 "miles" the crank case is drained and filled, using 30 SAE oil. After 25,000 "miles," the oil filter is opened, the old element pulled out, the filter case washed out and a fresh unit replaced. This is the routine for keeping these engines running. On the instrument board are several instruments, among which is a combination tachometer and odometer which registers equivalent mileage which the engine would have run had it been placed in a vehicle and run on the highways. Another instrument is the oil-pressure gauge, another the jacket-water temperature, the vacuum in the intake manifold is indicated and the exhaust temperature shown by another instrument. One of these engines has been operated over a time which indicates that 397,500 "miles" have been covered without removing the cylinder head or opening the crank case.

The water-cooling system is operated without trapped air to cause hot spots by eliminating vapors with automatic traps. One such instrument is installed above the power cylinders of each twin engine on rather high risers with the vent line leading to waste. The radiator units have additional eliminators which prevent the accumulation of pockets at the top of the piping system. Since the air intake face of the radiators is exposed directly to the weather and the atmosphere, dust and small insects lodge on the cooling fins and water tubes. Compressed air is used about twice each year to remove the accumulation of foreign matter so that the efficiency of the exchange of temperature is held at the maximum.



Instrument panel, one for each pump engine, shows jacket temperature, oil pressure, comparative road miles, tachometer and cylinder vacuum gauge.

OIL WEEKLY EDITION

BAASH ROSS News

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You may not see yourself in these on-the-spot photos of the actual construction of a secret south sea island military base. But you're there . . . on this and on scores of similar secret bases from Iceland to Australia, Alaska to Africa . . . all part of the mighty military machine Uncle Sam is rushing to completion.

You, and hundreds of oil men like you, are just as much a part of this base as if you were standing there directing operations. For all this takes steel . . . LOTS of steel. Steel not only for the guns and tanks and battleships you already know about, but steel also for a thousand and one other less dramatic but equally important jobs such as those shown here.

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STEEL FOR LANDING MATS to keep heavy equipment from bogging down in the sand is one of the many places your steel is going these days.

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*NOTE: The above are official U.S. Navy photos taken during the fortifying of a secret position in the South Seas. The name of this island cannot be revealed for obvious reasons . . . but operations here are typical of the **many** and varied requirements your steel conservation helps to meet.*

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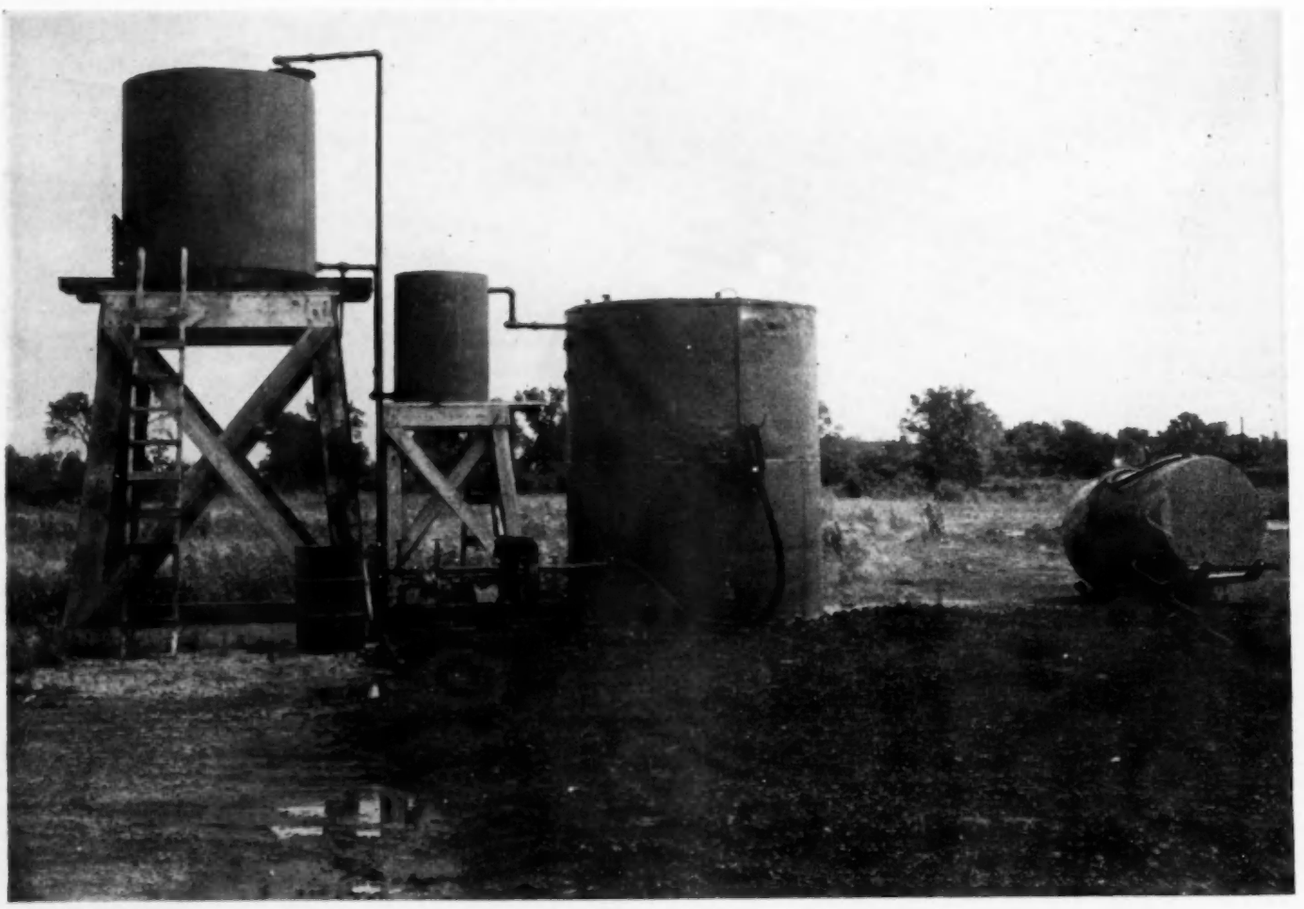
Lease Water System Overcomes Illinois Conditions

By ELTON STERRETT, Staff Writer

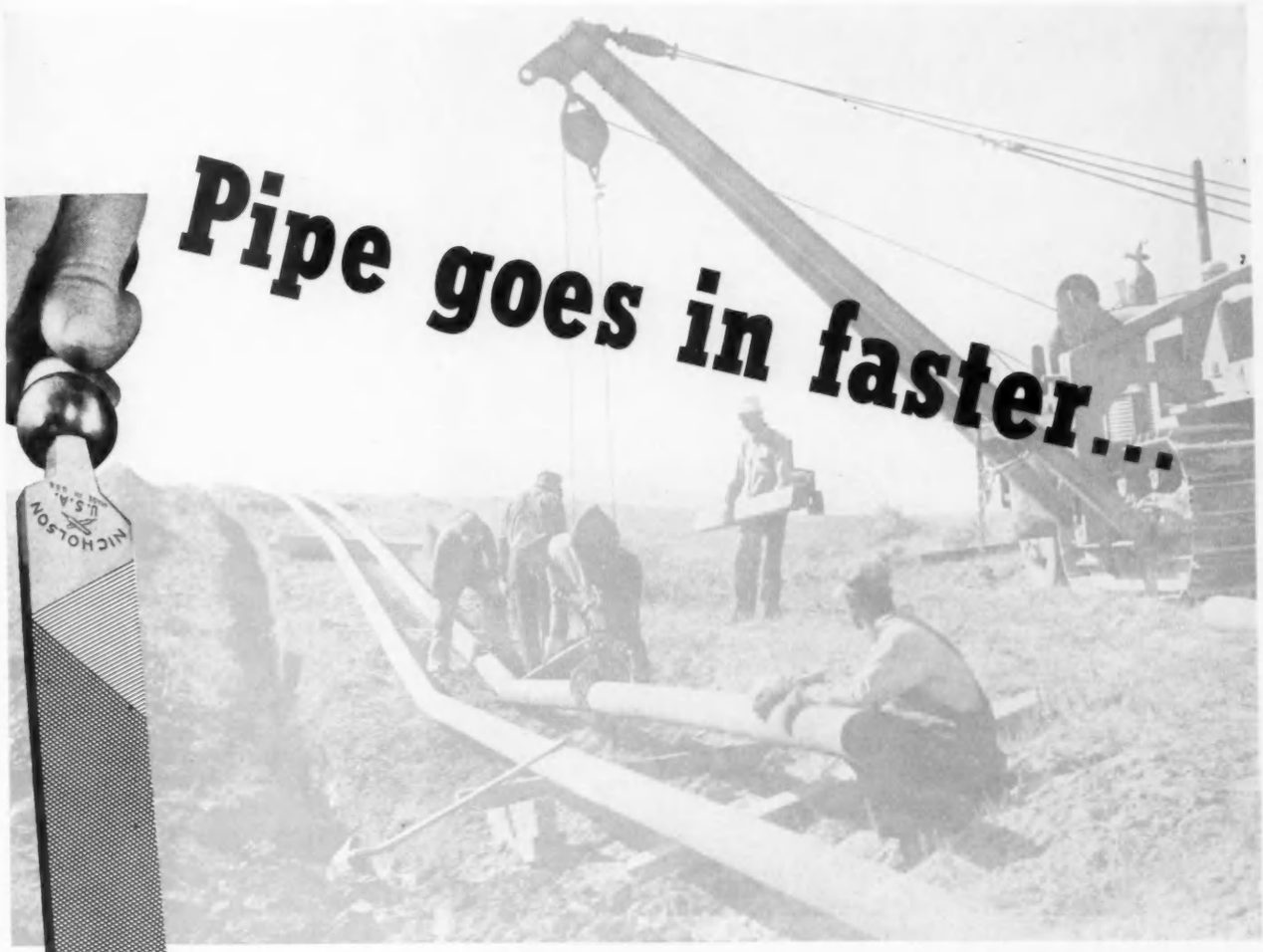
LOWERING of reservoir levels in municipal water supply systems adjacent to Centralia, Salem and other actively drilled fields in Illinois by intensified drilling demand led to increasing of bacteria count in the remaining water to the point where chemical treatment necessary to meet health requirements so loaded the water with scale-forming solutions as to leave it no longer usable in closed cooling systems such as those found on gas- or butane-driven engines on pumping rigs and in field pump stations.

Inasmuch as the underground water from all strata encountered above oil production was so loaded with "gyp" as to be worse even than the artificially hardened water of the municipal systems, other provision had to be made for maintaining a steady supply of make-up water for the power units. Flushing of cooling systems with dilute hydrochloric acid, although removing much of the carbonate-based deposits in the tubes, also tended to deteriorate the thin-walled tubes and narrow passages of the radiators and to set up electrolytic couples at every soldered joint, resulting almost at once in a great demand for radiator repair and replacement.

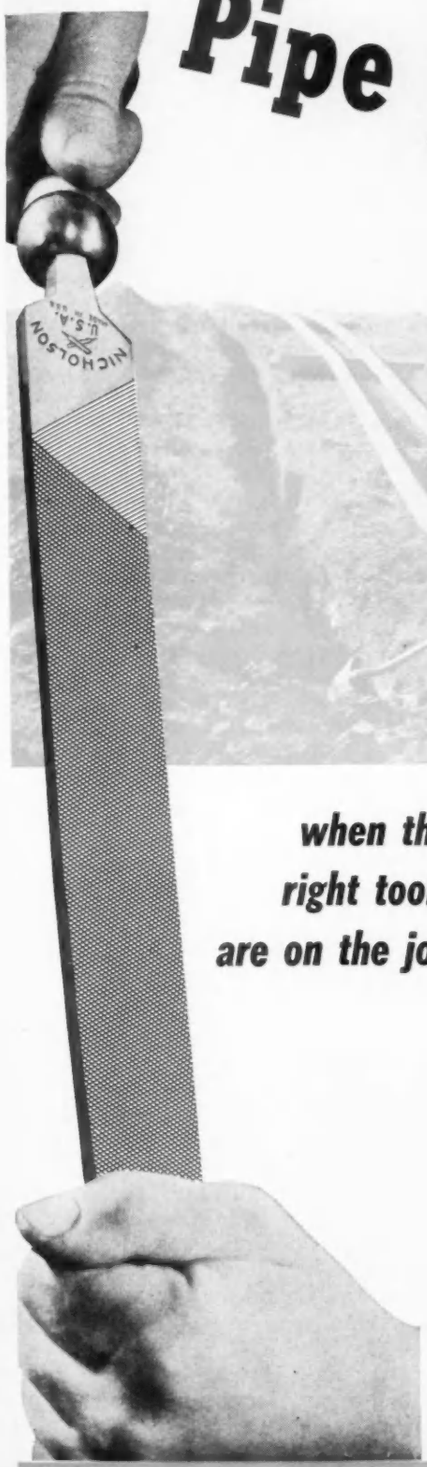
Hauling in of make-up water from surface streams, when any could be found which were not at



Three-tank filtration system which provides mechanical purification of water stored for use as make-up in cooling systems of lease and well pumping powers in Centralia field. Gravel and sand beds in intermediate tank trap impurities present in elevated storage and provide clear supply in lower, collecting unit.



Pipe goes in faster...



when the right tools are on the job

THE importance of the *right tools* goes back farther than to the equipment directly on the operation. It goes back to the tools that help to keep that equipment in good working order.

On field work especially — far from machine-shop base — FILES are one of the maintenance man's most versatile and frequently needed kind of tools. Their cost isn't a "drop in the bucket" compared to the down time they may be able to save on scores of temporary or permanent equipment repairs, parts replacements or tool dressing.

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Individually powered centrifugal pump with interconnected manifolds provides for handling raw water from field pond storage, purified water to distribution tanks, or for recirculation of water from low to high tank for re-run in case of high impurity percentage.

least periodically contaminated past the danger point by surreptitious or permitted flushing of salt-water systems, was resorted to by producers, but amounted to a serious addition to operating expense, in addition to tying up men and equipment which might be urgently needed elsewhere.

One company, finding surface water usable if cleared of entrained vegetable matter, set up a system of collecting ponds on its leases, locating the fresh water ponds higher on the terrain than any brine disposal lines to prevent possible contamination from well or tank leakage, and then pumping the water thus collected to a centrally located filtering plant from which make-up water could be taken to the individual power units as desired.

The filtration plant consists of a 50-barrel elevated tank, serving as collection or reception unit. From this tank flow is by gravity into the base of a 10-barrel filtering unit, in which are arranged layers of coarse gravel, fine gravel, and washed sand, the filtered water being drawn off from the top under the gravity flow upward through the filtering material. Storage is in a 100-barrel tank, set below the outflow from the filter.

A centrifugal pump, powered by a single-cylinder gasoline engine, serves to handle pond water into the storage tank, to take water from a tank truck if pond supply is too low, or to draw filtered water from the clean storage unit and put it into a small portable tank, temporarily on the back of a pick-up truck, for distribution over the lease to the various power units.

The manifold on the pump system is such that the unit may be used also to recirculate water from the storage tank through the filter system, in case the water becomes heavily contaminated or the filter unit fails to act properly.

Where the water supply truck carries its own pump, a bypass in the pump manifold permits direct transfer from truck tank to the elevated storage unit.

Each horizontal run of the manifold is also provided with at least one tee at an end, instead of the ell which the design might indicate, the plug in the end of the run being removable for flushing out the section of pipe.

To prevent contamination of the water supply by wind-borne trash, to cut down evaporation as much as possible, and to prevent the hatching of mosquitos in what would be ideal conditions for rapid turn-over of larvae, all tanks are built with tight tops, screened vents permitting circulation of air as a tank is filled or emptied.

Because of the relatively large quantities of water which would be required for reverse circulation flushing of the filter medium when retarded flow from the storage tank indicated the approach of an impurities seal in the sand bed, it has been found less expensive and quicker to empty the filtering unit simply by removing a plug and washing clear, refilling the unit with segregated materials as at first, and recirculating the first batch of water until the bed has become sufficiently consolidated to form an effective stop for the smaller particles of vegetable — and insect — matter borne by the stream from the surface ponds.

The filtration system is not insulated or lagged, nor is any attempt made to protect it against freezing, the loss from the radiator systems in cold weather being reduced to minor leaks around circulating pump shafts, and the make-up being required at infrequent intervals if at all, in contrast with the summer demand to make up for daily evaporation loss.

During the winter the entire filtration system is drained, and then the plugs greased and replaced lightly to cut down on the circulation of air through the various units, so as to minimize insofar as possible rusting of the tank steel, especially wherein contact with the layers of sand and gravel.

Any rust formed which works loose in the storage reservoir or filter unit is trapped in the filter bed upon resumption of the operating cycle, while any rust flakes carried into or present in the big tank have ample opportunity to settle to the bottom, to remain undisturbed by the relatively slow flow of water to the pump suction as water is withdrawn for the transfer unit.

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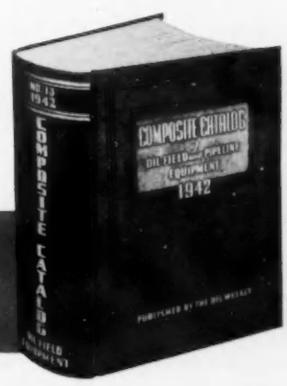


the COMPOSITE CATALOG

OF OIL FIELD AND PIPE LINE EQUIPMENT

Simple, Efficient Pipe Bending Platform for Field Use

BENDING piping of various weights and sizes to special shapes is not difficult when proper equipment is provided for this work. When one or more pipe bends are to be made that cannot be accomplished with cold pipe or where operating conditions require smooth interior surfaces, one company has found it advantageous to use a simply designed bending platform that provides a wide variety of shapes.

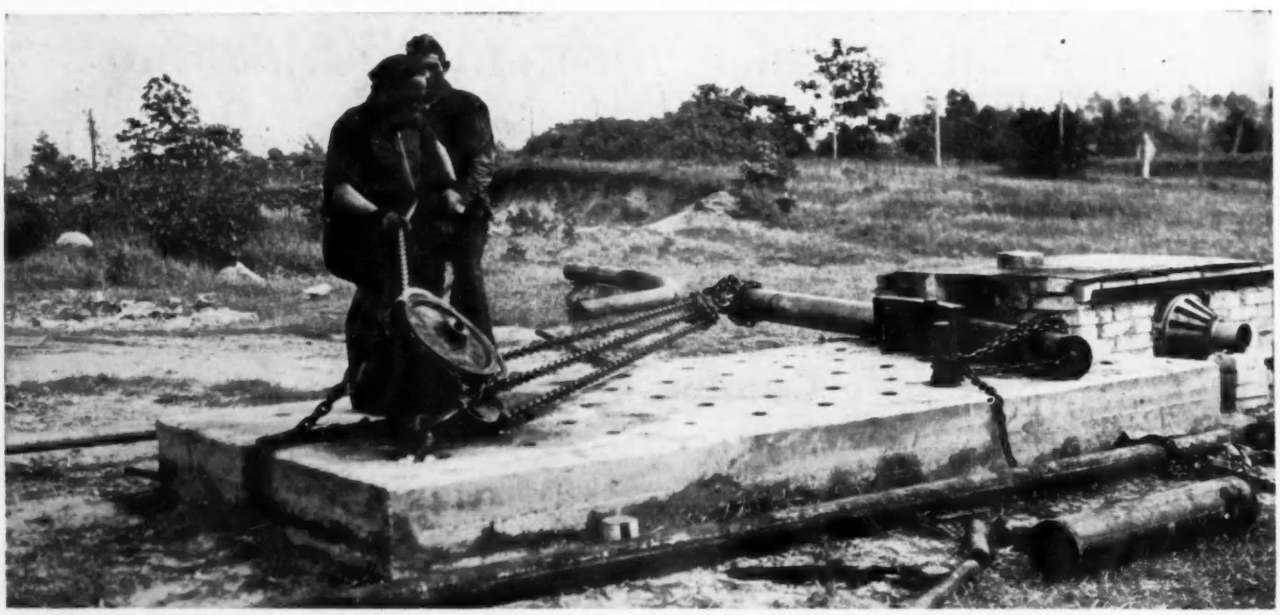
Briefly the device consists of a concrete slab into which have been sunk a number of pipe nipples, a heating furnace, a heavy-duty chain hoist, and a shaper. After heating, the proper shape is obtained by inserting iron pegs in a selected series of the nipples. Chaining one end of the pipe joint to two of the iron pegs, placing the correctly styled shaper against two nipple-inserted iron pegs opposite the heated part of the pipe, and pulling on the other end of the pipe with the chain hoist accomplishes the job.

The first move in building a bending platform of this type is the excavation of a vertical-walled, smooth-bottomed pit, 13 feet long, six feet wide and two feet deep. This is filled with concrete extending to a height one foot above ground level. Before pouring the cement mix, which requires about 8½ yards, 55 two-inch plain end nipples about 24 inches long are hung vertically in the concrete form on 12-inch centers (see illustration). This number of nipples makes five rows of 11 each, the outside nipples being set approximately one foot in from the outside of the edge of the concrete form. The nipples are hung so their upper lip will be flush with the concrete flooring when poured. In one corner, near the nipple at that location, an extra heavy ring, or U-bolt, set well down in the concrete, is placed. This U-bolt is employed as an anchor for a heavy chain hoist used in procuring sufficient pressure to bend the pipe.

At one end of the platform, a gas fired furnace is built. The firebox, or heating section, is made of firebrick, with an open top. The top of the heater consists of sheets of removable light weight iron. Both ends of the heater are partially open so a joint of pipe can be slipped through from the bending platform.

Accessories required for active work when making bends consist of several pieces of tough bar iron, several short lengths of chain and a shaper. The bar iron or retaining pins are of a diameter that will permit them to easily slip into the sunken pipe nipples of the concrete platform. These pegs are of sufficient length so they will extend approximately one foot above the concrete platform surface when inserted in the sunken nipples. The short lengths of chain are for anchoring the joint of pipe at one end and for providing means of attaching the hoist hook at the other end. The shaper is a short piece of channel iron, which has been shaped or forged to the desired angle the pipe is to be bent.

Two men working patiently with the pipe can procure any degree of arc desired when given this shaping platform.



A heated piece of pipe being bent on the bending platform. If it commences bending too rapidly, water is poured over the part bending too rapidly until it is cooled and therefore stiffer. Note series of nipple holes in concrete platform, making it possible to obtain different arc degrees.

Industry's Second Quarter Earnings Down Materially

By L. J. LOGAN, Associate Editor

HANDICAPS and difficulties imposed by the war have had definitely adverse effects on oil industry earnings this year, although some companies were able to show better records for the first half of 1942 than for the like period of 1941, largely in reflection of a generally profitable initial quarter this year.

Most of the oil companies that issue quarterly or mid-year financial reports have done so by now, and tabulation of the results for 30 companies shows that they earned 10.2 percent less in the first 6 months of this year than in the corresponding months of last year.

Only 23 of the companies reported quarterly, and those concerns in the aggregate earned 20.2 percent less in the first half of 1942 than in the like period of 1941.

More significant, however, than the results for the first 6 months as a whole were those by quarters. In the second quarter of 1942, the 23 companies showed aggregate earnings of $31,044,879, against $52,862,020 in the second quarter of 1941, a decrease of 41.2 percent. And among the 23 concerns, only 5 had a better second quarter for this year than for last year.

Furthermore, whereas the second quarter of the year normally brings substantially more net income than the first quarter, there was this year a material decline. The $31,044,879 earned by the 23 companies in the second quarter compared with $36,838,992 in the first quarter.

Factors which have entered prominently into the curtailment of earnings in the oil industry this year have included the following: (1) sharply increased federal income taxes, (2) increased costs, which could not be passed on to consumers because of price ceilings, (3) curtailed volumes of business for many companies, particularly as regards production and refining in the Southwest and refining and marketing on the East Coast.

For the industry as a whole, higher taxes and increased costs exerted relatively greater restriction on earning power in the first 6 months than did curtailment of volumes of business. For some companies have sold more oils this year than last year, while others, although selling less, have had larger gross income, in reflection of higher prices in the first several months of 1942 than in the corresponding months of 1941. (Both crude and refined oils advanced in price in the spring of 1941.)

For 16 companies, gross income in the first 6 months of 1942 was $856,081,538, compared with $699,462,780 in the corresponding months of 1941, every one of the 16 having shown an increase. Even in the second quarter, there was indicated larger gross income for this year. For 14 companies, the gross income from April through June, 1942, was $300,673,501, compared with $274,477,460 in the like period of 1941, although several of the 14 showed decreases. The same 14 companies had reported for the January-March quarter, 1942, gross income of $288,538,303, against $235,992,784 in the similar period of 1941, with only 1 of the 14 registering a decrease.

In the first quarter of this year, demand for oil still was exceptionally great, after rising to unprecedented levels in 1941. The curtailment of shipment to the East was reflected only during a part of the period, while lack of new tires and new automobiles was then only slightly felt. All these retarding factors were felt, however, in the second quarter, and equaling of year-ago volumes of sales became difficult.

For the third quarter, retardation of demand is sharply pronounced, moreover, with customary vacation travel virtually wiped out. In the third and fourth quarters of this year, therefore,

Second Quarter Earnings of 23 Oil Companies Materially Under First Quarter and Off 41 Percent from Second Quarter of Last Year

(Net income after all deductions, including interest, depreciation, depletion, amortization, federal taxes, minority interest, etc.)

COMPANY	First Quarter of 1942	SECOND QUARTER 1942	SECOND QUARTER 1941	SECOND QUARTER Percent Change	FIRST SIX MONTHS 1942	FIRST SIX MONTHS 1941	FIRST SIX MONTHS Percent Change
Amerada Corp	$ 698,287	$ 510,065	$ 593,642	— 14.0	$ 1,208,352	$ 1,100,286	+ 9.8
Atlantic Refining Co	1,237,035	*32,813,985	2,315,008	.....	*21,576,950	5,061,543	.....
Barnsdall Oil Co	775,248	[3]433,506	[3]823,536	— 47.3	1,208,754	1,310,105	— 7.7
Lion Oil Refining Co	254,194	[3]309,168	[3]313,693	— 1.4	563,362	440,337	+ 27.9
Maracaibo Oil Exploration Corp	11,734	23,502	10,088	+132.9	35,236	18,828	+ 87.1
Mid-Continent Petroleum Corp	1,676,157	1,291,694	1,233,718	+ 4.6	2,967,851	1,758,348	+ 68.7
Mission Corp	294,073	[3]162,604	[3]164,256	— 1.0	456,677	338,366	+ 34.9
Ohio Oil Co	2,953,075	[2]2,890,119	2,843,043	+ 1.6	5,843,194	4,776,815	+ 22.3
Pacific Western Oil Corp	3,039	[3]58,148	*108,081	.....	61,187	*144,608	.....
Panhandle Prod. & Refg. Co	35,046	13,270	67,936	— 80.4	48,316	89,834	— 46.2
Phillips Petroleum Co	3,364,551	[3]3,366,868	4,928,788	— 31.6	6,731,419	8,236,680	— 18.2
Quaker State Oil Refining Corp	429,093	252,200	698,791	— 63.9	681,293	916,846	— 25.6
Richfield Oil Corp	539,394	[3]579,084	[3]1,127,696	— 48.6	1,118,478	1,851,138	— 39.5
Shell Union Oil Co	4,656,546	[2]2,572,404	4,208,151	— 38.8	7,228,950	[4]7,829,945	— 7.6
Skelly Oil Co	1,300,036	908,433	1,770,829	— 48.7	2,208,469	2,669,746	— 17.2
Standard Oil Co. of California	5,456,952	7,867,084	7,970,883	— 1.3	13,324,036	12,770,067	+ 4.7
Standard Oil Co. (Ohio)	1,051,017	[3]1,038,299	[3]1,335,554	— 22.2	2,089,316	2,542,312	— 17.8
Superior Oil Corp	*21,540	73,612	68,437	+ 7.5	[4]52,072	[4]118,025	— 55.8
The Texas Corp	7,900,000	[2]7,370,746	16,807,368	— 56.1	15,270,746	23,407,368	— 34.7
Texas Pacific Coal & Oil Co	266,552	140,347	273,907	— 48.7	406,899	469,505	— 13.3
Tide Water Associated Oil Co	3,199,038	[3]1,838,060	[3]3,387,297	— 45.7	5,037,098	6,247,247	— 19.3
Union Oil Co. of California	728,380	[2]2,131,389	1,902,889	+ 12.0	2,859,769	3,175,895	— 11.0
Universal Consolidated Oil Co	31,085	28,262	124,591	— 77.3	59,347	126,552	— 53.1
Total 23 Companies	$36,838,992	$31,044,879	$52,862,020	— 41.2	$67,883,871	$85,111,180	— 20.2
Consolidated Oil Corp	.....	.....	.....	.....	8,423,448	3,471,941	+142.6
North American Oil Consolidated	.....	.....	.....	.....	28,937	88,519	— 67.3
Pure Oil Co	.....	.....	.....	.....	6,782,000	4,900,000	— 38.4
Socony-Vacuum Oil Co., Inc	.....	.....	.....	.....	[1]13,500,000	[1]13,000,000	+ 3.8
Standard Oil Co. of Indiana	.....	.....	.....	.....	19,390,526	21,763,134	— 10.9
Sun Oil Co	.....	.....	.....	.....	3,677,091	5,168,431	— 28.8
Texas Gulf Producing Co	.....	.....	.....	.....	188,632	84,308	+123.7
Total 7 Additional Companies, First 6 Months Only	.....	.....	.....	.....	$51,990,634	$48,476,333	+ 7.2
Total 30 Companies, First 6 Months Only	.....	.....	.....	.....	$119,874,505	$133,587,513	— 10.2

* Net loss. [1] Estimated by company. [2] Company reported operating loss of $3,400,848 for first six months of 1942, against a net operating income of $5,012,680 for corresponding period of 1941. Partially offsetting the operating loss, company reported involuntary conversion of fixed assets of $1,957,828, while non-operating income was $353,903, interest paid out $487,518, and income applicable to minority interests $315, leaving net loss of $1,576,950. [3] Based on comparison of company's reports for first quarter of fiscal year and the six months' period. [4] Based on first and second quarter figures.

Substantial Gains in Gross Income or Sales Fail to Cover Higher Taxes and Costs

COMPANY	FIRST QUARTER		SECOND QUARTER		FIRST SIX MONTHS	
	1941	1942	1941	1942	1941	1942
Atlantic Refining Co.	$34,572,720	$44,254,673	$39,208,227	$41,479,843	$ 73,780,947	$ 85,734,516
Maracaibo Oil Exploration Corp.	21,947	27,568	29,221	24,416	51,168	51,984
Mid-Continent Petroleum Corp.	8,243,533	11,045,271	11,941,797	12,643,169	20,185,330	23,688,440
Ohio Oil Co.	13,715,336	17,428,310	16,532,268	19,583,525	30,247,604	37,011,835
Panhandle Producing & Refining Co.	576,059	837,145	922,242	884,150	1,498,301	1,721,295
Phillips Petroleum Co.	28,389,692	32,535,438	34,042,034	36,867,898	62,431,726	69,403,336
Quaker State Oil Refining Corp.	5,430,495	7,500,970	6,607,060	6,447,383	12,037,555	13,948,353
Richfield Oil Corp.	10,398,124	12,644,263	13,056,457	11,839,667	23,454,581	24,483,930
Shell Union Oil Corp.	62,990,646	85,789,107	70,720,273	80,072,292	133,710,919	165,861,399
Skelly Oil Co.	9,270,948	10,887,300	11,994,759	11,632,880	21,265,707	22,520,180
Standard Oil of California	9,321,367	12,873,925	13,828,207	15,166,900	23,149,574	28,040,825
Superior Oil Corp.	368,263	375,904	346,089	347,528	714,352	723,432
Tide Water Associated Oil Co.	34,927,272	31,988,606	36,503,279	42,143,352	71,430,551	74,131,958
Union Oil Co. of California	17,766,382	20,349,823	18,745,547	21,540,498	36,511,929	41,890,321
Total 14 Companies	$235,992,784	$288,538,303	$274,477,460	$300,673,501	$510,470,244	$589,211,804
Consolidated Oil Corp.					$116,816,659	$144,003,234
Sun Oil Co.					72,175,877	122,866,500
Total 16 Companies					$699,462,780	$856,081,538

gross income of oil companies will be relatively more affected than in the first 6 months, to add to the difficulties raised by high taxes and extraordinary costs.

In reflection of sustained gross income and the comparatively good first quarter, net income before federal income taxes was larger for the first 6 months of 1942 than for the corresponding months of 1941 for a majority of companies. For 19 companies, the aggregate net income before income tax was $125,858,681, compared with $108,419,590. However, 6 of the 19 companies showed decreases, while 1 had a loss.

The 19 companies made provision for payment of approximately twice as much federal income tax for the 6 months' period as in the like period last year. They set aside $49,705,336 for federal income taxes, against $25,896,818 similarly earmarked last year. Only 4 of the 19 companies made provisions smaller than for the first 6 months of last year.

Reserves set up to cover federal income and excess profits taxes (if any) were generally "based on the best information available," as stated by one company, with rates called for in the Revenue Act of 1942 as passed by the House of Representatives commonly used in the computations. Thus one company explained that it had based the provision for federal income and surtaxes for the first 6 months of 1942 on a combined 45-percent rate and the reserve for federal excess profits taxes on a 90-percent rate.

Paradoxically, one company showed for the first 6 months a substantial deficit before provision for federal income taxes and yet set aside a comparatively large amount for payment of such tax, thereby increasing reported loss for the period. Explanation was made that the provision was due to certain subsidiaries operating at a profit.

After making the provisions for federal income taxes, the above mentioned 19 companies had left only $76,153,345 of net income for the first 6 months of 1942, compared with $82,522,772 for the corresponding months of 1941. All but 5 of the 19 showed less net income after taxes than in the first 6 months of 1941.

Sharp Rise of Federal Income Tax Prevents Net Income for First Six Months Equal to that of Last Year

COMPANY	NET INCOME BEFORE FEDERAL TAXES		FEDERAL INCOME TAXES		NET INCOME AFTER FEDERAL TAXES	
	6 Mos. 1941	6 Mos. 1942	6 Mos. 1941	6 Mos. 1942	6 Mos. 1941	6 Mos. 1942
Atlantic Refining Co.	$ 7,094,643	*$ 1,161,250	$ 2,033,100	†‡ 415,700	$ 5,061,543	*$ 1,576,950
Barnsdall Oil Co.	1,327,681	1,386,886	17,576	178,132	1,310,105	1,208,754
Consolidated Oil Corp.	4,671,941	14,423,448	1,200,000	6,000,000	3,471,941	8,423,448
Lion Oil Refining Co.	629,051	1,408,405	188,715	845,043	440,336	563,362
Lone Star Gas Corp.	6,417,249	7,193,292	1,083,812	2,022,500	5,333,437	5,170,792
Maracaibo Oil Exploration Corp.	18,828	43,736		8,500	18,828	35,236
Mid-Continent Petroleum Corp.	2,058,348	4,703,331	300,000	1,735,480	1,758,348	2,967,851
North American Oil Cons.	103,519	35,937	15,000	7,000	88,519	28,937
Ohio Oil Co.	5,454,039	7,661,393	677,224	1,818,199	4,776,815	5,843,194
Panhandle Producing & Refining Co.	93,814	68,125	3,980	19,809	89,834	48,316
Phillips Petroleum Co.	10,414,715	9,956,419	2,178,035	3,255,000	8,236,680	6,731,419
Quaker State Oil Refining Corp.	1,378,321	2,175,309	461,474	1,494,015	916,847	681,294
Richfield Oil Corp.	2,651,138	1,693,478	800,000	575,000	1,851,138	1,118,478
Skelly Oil Co.	3,537,746	4,611,469	868,000	2,403,000	2,669,746	2,208,469
Standard Oil Co. of California	15,202,067	16,502,036	2,432,000	3,178,000	12,770,067	13,324,036
Standard Oil Co. of Indiana	28,590,786	34,906,884	6,827,652	15,516,358	21,763,134	19,390,526
Standard Oil Co. of Ohio	6,158,812	9,150,316	3,616,500	7,061,000	2,542,312	2,089,316
Tide Water Associated Oil Co.	8,240,247	7,289,698	1,993,000	2,252,600	6,247,247	5,037,098
Union Oil Co. of California	4,376,645	3,809,769	1,200,750	950,000	3,175,895	2,859,769
Total 19 Companies	$108,419,590	$125,858,681	$25,896,818	$49,705,336	$82,522,772	$76,153,345

* Loss. † Due to certain subsidiaries operating at a profit.

In issuing reports for the first half of this year, oil company managements were generally unwilling to risk forecasts for the remainder of the year, in view of the many uncertainties caused by the war. However, Henry M. Dawes, president of The Pure Oil Company, probably gave an accurate general forecast for the whole industry when he cautioned stockholders that:

"It would be unwise to draw too optimistic inferences from a comparison with the actual earnings of the first six months of 1941. [The company showed profit of $6,782,000 for the first half of 1942, against $4,900,000 for the like period of 1941.] The first six months of last year showed less than a proportionate share of total earnings of the year, and present conditions indicate that the earnings for the next six months will be less than those of the last six months of 1941."

So far this year, the impact of the war has been of widely varying intensity upon different companies, depending principally upon geographic distribution of operations. Especially hard hit have been companies with all or large proportions of their business consisting of refining and marketing on the East Coast. They have suffered not only curtailment of volumes of business, because of the transportation shortage, but also heavy extraordinary costs, particularly in connection with shipping.

Also particularly handicapped by the transportation troubles have been companies and operators with large production in Texas, New Mexico, and some other Southwestern states. They experienced severe curtailment of markets when normal shipments to the East were disrupted, and were affected especially during and after the second quarter of the year.

All branches of the industry within the Middle West and the Upper Mid-Continent, however, more or less escaped ill effects of the transportation trouble, and to some extent profited by the inability of the Southwest to supply the East, having gained Eastern business. However, some costly readjustments of operations were necessary in helping to supply the East. Meanwhile, normal markets have undergone shrinkage because of the lack of new tires and automobiles. Furthermore, rationing ultimately may have to be extended at least into the Middle West, if not nationally; and that possibility clouds the outlook for companies operating within the interior region.

Companies serving the Pacific Coast have had substantial extraordinary costs in substituting overland transportation methods for normal tanker use, and rationing in the states of the Northwest has been an unfavorable factor.

Pipe Program

[*Continued from page 13*]

livery, entirely by pipe line, of 15,000 barrels of products daily to Susquehanna's eastern terminus at Newark, New Jersey.

The pipe line from Fostoria to Akron is to be financed by the government and constructed of second-hand pipe. It is aimed to complete the link before the close of navigation on the Great Lakes.

The whole project, developed by the Project 3 managing subcommittee, calls for an increase in the capacity of Shell's Zionville, Indiana-Lima, Ohio, line from 15,000 to 23,000 barrels by installation of a new pump station at Muncie, Indiana; connection at Zionville of the Standard Oil Company (Indiana) and Shell pipe lines, and sale by the former to the latter, for movement to Lima, of 8000 barrels of products daily, to be delivered at Lima to Standard Oil Company (Ohio), which in turn will move it to Toledo in its products line; movement from Toledo to Cleveland by water of the 8000 barrels delivered by Sohio, plus an additional 7000 barrels daily originating at Toledo; movement from Cleveland to Akron, by lines of Sohio and Sun-Susquehanna, supplemented by transport truck if necessary, of the 15,000 barrels; and reversal of the Sun-Susquehanna line between Akron and Newark to carry the oil to terminus.

Other Projects

Progress on other parts of the OPC pipe line program was summarized by Davies, as follows:

Four contractors are on the job and making satisfactory headway on the Texas-Illinois "big-inch" line, a fifth contractor is about to get going and work has already started on the Red River and Little Missouri River crossings.

Contractors are clearing right-of-way, casing highway and railroad crossings and have started welding pipe in connection with The Texas Pipe Line Company's loops between Dallas and Stuart, Oklahoma, which it is anticipated will be completed by October 1.

Construction of loops on the Stanolind pipe line between Graford, Texas, and Healdton, Oklahoma, will be started when pipe is received from mill in September; all other materials have been received and work in connection with the installation of superchargers and river crossings is progressing.

Texas-Empire Pipe Line Company expects to have the second pumping unit at Centralia, Missouri, station in operation within the next few days; one pumping unit at Hiattsville, Kansas, station is now in operation and the station will be in full operation about August 25.

Contractor is clearing right-of-way for Illinois Pipe Line Company's loops across Ohio, with pipe expected from the mills beginning August 20.

Tuscarora Oil Company has completed several stations in connection with reversal of the line; sites are being selected for other stations and bids are being circulated for construction of buildings and tanks at the Bayonne, New Jersey, refinery are being dismantled and made ready for shipment to the Negley, Ohio, station, the western terminus.

Southern Pipe Line Company's Hancock, Maryland, station is 75 percent completed, and the pump house at York, Pennsylvania, is finished but no equipment has been received.

National Transit Company has completed testing and reconditioning 10 miles of 8-inch pipe, which has been looped into the Millway-Centerbridge line in Pennsylvania.

Arkansas Fuel Oil Company has discontinued using the gasoline line from Shreveport to Port Arthur and is preparing to turn it back to The Texas Pipe Line Company which will start immediately on the five pump stations and other details in connection with reversal to have the line ready about the time the new pipe line to Helena is constructed.

About 96 percent of the right-of-way for the El Dorado-Helena line has been purchased, and 64 miles have been cleared, with 10 miles of pipe laid on the Helena end and laying begun at El Dorado. About 35 miles of Magnolia's Panhandle line has been taken up and shipped to Arkansas. Contractor is installing steel roofs on tanks and contract has been signed for station building at El Dorado. The nine 80,000-barrel storage tank layout at the Helena terminal is ready for grading contractor bids, and contract covering the financing, operation, etc., is about ready to submit for approval to the various government departments.

The American Liberty Pipe Line is being dismantled in East Texas and reconditioned before shipping to Florida where preliminary work is progressing. Application for new material necessary is pending before WPB.

☆

PRICES: Petroleum price schedule No. 8 was further revised by the Office of Price Administration August 21 with a view to encouraging maintenance of central storage facilities and to simplify methods of determining maximum prices for crude.

The amendment, to become effective August 26, revises the method for determining the maximum price for wells not producing on October 1, 1941, the base price date, and permits contract prices to be paid for oil covered by contract, regardless of whether the well was in production October 1, by changing from an "at the well" basis to a "at the receiving tank" basis.

It was explained that the former method of pricing production from wells not producing last October 1 made necessary segregation and storage measurement of the oil in each category, resulting in wasteful duplication of storage facilities.

The amendment also contains provisos which permit contract prices in excess of posted prices to be charged for sales of crude at the well and also permits the premium price to be charged for sales at a point away from the well.

Producers of crude for which no maximum price is fixed may set temporary prices subject to reporting to and approval by OPA.

☆

ASPHALT: New maximum prices for paving asphalt, cut-back asphalt and road oils at refineries in California and for ocean terminals in Oregon and Washington have been fixed by the Office of Price Administration.

The new schedule establishes posted prices for the period from October 1 to 15, 1941, as the maximum prices, in place of prices on deliveries during the period from July 1 to October 15, last.

OPA explained that due to the fact that the principal California companies concluded most of their transactions between July 1 and October 15 on the basis of May and June posted prices, the former maximum schedule did not reflect adequately the higher prices posted during the October 1-15 period.

The schedule also restores the normal $2 differential between asphaltic products produced by Santa Maria Valley (California) refineries and the San Francisco Bay area, which was not in effect between October 1 and 15 because the valley refineries did not increase their prices until late October or November.

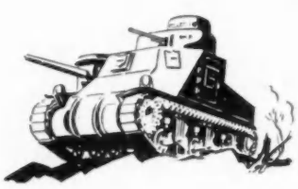
☆

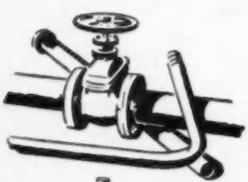
MANPOWER: The War Manpower Commission has approved certain occupations in petroleum, natural-gas and natural-gasoline activities as essential to the support of the war effort, and has listed a number of such occupations, re-

URGENT.

DERRICKS INTO TANKS . . .

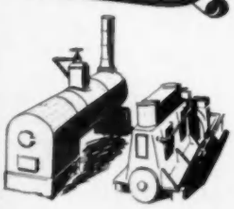
An average 122-foot derrick weighs almost 15 tons. That's as much scrap as is needed to make steel for a medium tank.





PIPE INTO BOMBS . . .

1000 lbs. of scrap pipe added to the same amount of pig iron is enough for eight 250-lb. bombs. Hundreds of old oil wells still contain casing. Start a program for removing old casing.



BOILERS INTO TANKERS . . .

3000 tons of old boilers, steam engines, drilling units and hoists will help make 6000 tons of steel—enough to build a new tanker.

. . Steel mills must have 140,000 tons of scrap every day

THAT'S a lot of metal. It would take a 58-car freight train from *every* state in the union every day to haul that much scrap.

An acute scrap shortage is here. Usual sources of supply are running low. Now it is absolutely necessary to gather in every possible type of scrap from the most distant locations.

Oil field scrap comes in heavy pieces and can be readily prepared for the furnace. It is good scrap for making steel.

HOW YOU CAN HELP

Any scrap drive, to be successful, needs the backing of every oil company, every refinery, every factory, mine, railroad—even the farms and homes of the nation.

Enthusiastic promoters needed. A continuous scrap drive must have a man at the head who can get action out of the entire organization. He should be an executive and have power to make decisions. If you fail to get an aggressive man at the head, much valuable iron and steel will be left to rust away in distant locations.

Take these 5 steps to "Get in the Scrap"

1. Put one man in charge of salvage in each location, with authority to decide what is scrap.

2. Comb all your properties for dormant scrap, unused and abandoned equipment, broken tools, trucks, etc.

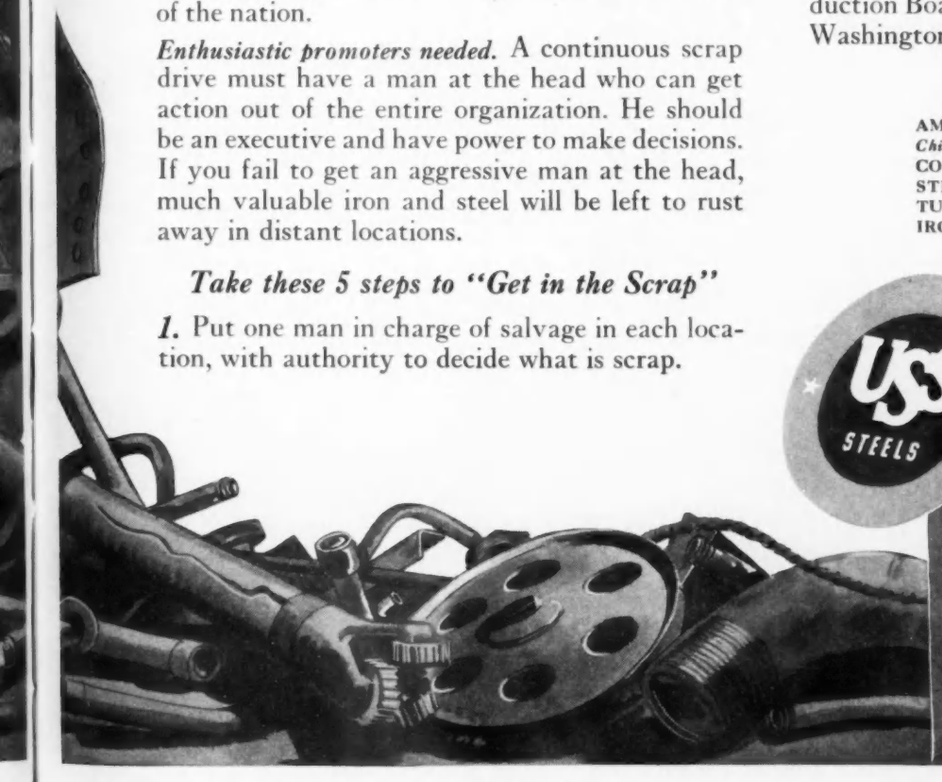
3. Survey all stock equipment, particularly idle, with a view to whether it will be used again or can be scrapped.

4. Devise awards and incentive systems to recognize effective work in the conservation and salvage program.

5. Use constant reminders in the form of posters, illustrations of right and wrong methods, pay envelope enclosures. These are potent aids in the conservation program.

Complete information on how to organize a scrap program can be obtained from the War Production Board, Bureau of Industrial Conservation, Washington, D.C., or from various local offices.

AMERICAN STEEL & WIRE COMPANY, *Cleveland, Chicago and New York* · CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago* · COLUMBIA STEEL COMPANY, *San Francisco* · NATIONAL TUBE COMPANY, *Pittsburgh* · TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham, Alabama*



USS STEELS

UNITED STATES STEEL

quiring six months or more of training and preparation, for the benefit of draft boards in classifying registrants for military service.

In instructions to draft-board officials, the Selective Service System said that consideration should be given, in classifying a registrant employed in these activities, to the training, qualification or skill required for the proper performance of the duties involved; the registrant's training, qualification or skill for engaging in the operation, and the availability of persons to replace the registrant who have similar training, qualification or skill, or who can be trained to have it, and the time in which such replacement can be made.

Critical occupations in petroleum, natural-gas and natural-gasoline operations were listed by the commission as follows:

Accountant.
Acid-recovery plant operator.
Analyst, geophysical.
Blacksmith.
Boilermaker.
Brickmason, refractory.
Carbon-black plant operator.
Carpenter.
Cementing (well) operator.
Chemist.
Chief Clerk.
Claim adjuster.
Coke burner.
Coke-oven mason.
Coke-oven repairman.
Compounder.
Computer, geophysical.
Core-analysis operator.
Dehydration plant operator.
Derrickman.
Designer, equipment.
Dispatcher.
Draftsman.
Driller.
Electrical logging operator.
Electrician.
Engineer operating, chief station
Engineer operating, chief station, boilerhouse.
Engineer operating, compressor.
Engineer operating, hoist.
Engineer operating, locomotive.
Engineer operating, natural gas.
Engineer operating, power.
Engineer operating, processing.
Engineer operating, supervising.
Engineer operator, processing.
Engineer, professional and technical.
Ethyl blender.
Filter house operator.
Fishing tool operator.
Foreman, boilermaker.
Foreman, carpenter.
Foreman, coal washing.
Metallurgist.
Oil blender.
Oil pumper, refinery (operator in charge).
Party chief, geophysical.
Physicist.
Pipe fitter.
Powerhouse switchboard controller.
Purchasing agent.
Rigger.
Seismologist.
Sheet-metal worker.
Shooter, oil well.
Foreman, coke products.
Foreman, communications.
Foreman, electrician.
Foreman, filler and package.
Foreman, fire crew.
Foreman, coal products.
Foreman, gas measurement.
Foreman, heat treating.
Foreman, insulator.
Foreman, leads.
Foreman, machine shop.
Foreman, maintenance and repair.
Foreman, petroleum refining.
Foreman, pipe shop.
Foreman, production.
Foreman, rigbuilding.
Foreman, shipping.
Foreman, tank cleaning.
Gas-lift plant operator.
Gasoline plant operator.
Generator operator.
Geologist.
Geophysicist.
Glass blower (instrument).
Grease maker.
Gun-perforating operator.
Houseman.
Inspector, mechanical.
Instrument repairman.
Insulator, boiler, steam, etc.
Interpreter, geophysical.
Laboratory technician (semi-prof.).
Landman, chief or division.
Lead burner.
Machinist.
Maintenance mechanic.
Manager, employment.
Manager, office.
Manager, operations.
Manager, personnel.
Manager, traffic.
Material and warehouse inspector.
Material inspector.
Metal and equipment inspector.
Stillman.
Tank builder.
Test-engine operator.
Tool dresser.
Tool pusher.
Topman.
Treater, oil well acidizing.
Treating plant operator.
Washerman.
Wax-plant operator.
Welder, combination.
Welder, high pressure.
Yardmaster.

☆

PRIORITIES: Petroleum producers who also are liquefied-petroleum-gas operators or users are to be granted priority assistance in securing materials for maintenance and repair of liquefied-gas equipment under the oil industry's Preference Rating Order P-98.

By amendments to Limitation Order L-86 and the P-98 order, the War Production Board has rectified a situation which excluded those firms engaged in both types of operation from any assistance under the several repair and maintenance orders.

A new application, PD-397, Revised, has been provided for use in securing exceptions under L-86.

☆

TANKER RATES: A series of orders setting rates and surcharges on tanker shipments in various trades have been issued by the War Shipping Administration.

A new schedule for oil and products from Gulf ports to Cuban destinations fixes rates ranging from 22.5 to 35.5 cents per barrel with surcharges running from 366 to 440 percent, with rates of 30.5 cents per barrel and 411 percent to Jamaica; 40 cents per barrel and 598 percent to Bermuda, and 40 cents per barrel and 388 percent to Aruba.

Voyage charter rates for gasoline and kerosine are set up from Gulf ports of 40 cents per barrel and 443 percent to ports north of Cape Hatteras but not east of New York, for export; 45 cents and 584 percent to the Portland pipe line for export, and 49 cents and 501 percent to Halifax, N. S.

A schedule of rates from Gulf ports to Latin America provide for charges ranging from $6.08 to $9.69 per long ton to various Brazilian destinations, with surcharges running from 141 to 205 percent; $10.33 to $11.29 per ton to River Plate ports, with surcharges of 125 to 135 percent; and $8.52 to $8.90 per ton to Chilean ports, with surcharges of 123 to 129 percent.

To ports in Central America and the Panama Canal Zone, rates ranging from 29.5 to 49.5 cents per barrel, with surcharges of 330 to 449 percent, are provided for shipments from Gulf ports; 43.5 to 72 cents per barrel and 66 to 80 percent from Los Angeles, and 49.5 to 78 cents per barrel and 66 to 79 percent from San Francisco. To Vancouver or Ioca, B. C., rates of 28.5 cents per barrel and a 68 percent surcharge are provided from Los Angeles; 26 cents and 67 percent from Port San Luis, and 23 cents and 67 percent from San Francisco.

New maximum rates on benzol in bulk between Pacific Coast ports have been issued for tankers of over 3000 gross tons operated for account of the War Shipping Administration, to be retroactive to April 20 or to any later date on which WSA requisitioned or chartered the individual vessel, of 13½ cents per barrel plus a surcharge of 36 percent on loadings completed up to June 30, and a surcharge of 62 percent on loadings completed thereafter.

☆

EQUIPMENT: Contractors in the fields of oil-refinery and synthetic-rubber-plant construction have been warned by WPB to use equipment of standard design wherever possible, in lieu of special equipment which may be banned at any moment.

The appeal was made by Howard Coonley, chief of the simplifications branch of the WPB conservation division, in letters to designers and constructors of refinery, rubber and power plants, in which it was pointed out that almost all materials used in such construction are on the critical list.

"A preliminary survey indicates that the inclusion in such installations of special designs will substantially retard production in bottleneck industries," Coonley said.

"The war effort may compel the government to prohibit the production of 'specials.' Before this happens, I am writing to all known contractors in the field, as well as to corporations doing their own designing and erection work, to request that hereafter, insofar as possible, only equipment of standard design be used."

Of 36 letters sent out, 11 went to refinery and rubber construction contractors, one of whom expressed the views of most of the others in a reply to the board.

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Refinery War Conversion

[Continued from page 12]

the standpoint of the purification of products made by others.

"Many of the larger refiners are already busy on plans for the production of war products. While they will be able to contribute to the present refinery-conversion program and perhaps may be able to submit acceptable proposals very rapidly, OPC particularly desires to receive proposals from small refiners."

Davies envisaged the program as giving three highly important advantages—first, in obtaining, quickly, a very considerable increase in the production of materials necessary to the successful prosecution of the war; second, in accomplishing this almost entirely with equipment already manufactured, thus reducing to a negligible degree the amount of new critical materials that will be required; and third, making it possible for a considerable number of small operators to get into the war-production program.

"In keeping with the well-established policy of this office," Davies said, "we shall expect each participant in the program to make his own selection of the processes he proposes to use. We are prepared, within reasonable limits, to criticize plans which are submitted, and to offer suggestions for improvement; but the fundamental responsibility for the selection of a process must remain with the company submitting the proposal.

"We shall expect each participant to submit his own proposal, bearing in mind that no projects will be approved except those which will use an absolute minimum of anything other than existing equipment.

"If will be the policy of the OPC to give fair treatment to each general type of process, giving consideration to the fact that, regardless of the merit of any specific proposals received from anyone, it will be necessary that we produce certain minimum quantities of each of these essential products as a part of the program.

"Time is precious, and it will, therefore, be the policy of the OPC to recommend, for immediate adoption, such refinery conversion proposals as are received in acceptable form and are found by us to be worthy of such recommendation."

OPC officials said that in recent weeks a number of letters have been circulated by both the oil agency and the technical advisory committee of the synthetic rubber committee of PIWC relative to the production of components for the manufacture of aviation gasoline and "quick" synthetic rubber. The demand for these products and for toluene is so urgent that complete coordination of the various programs could not have been achieved at an earlier date without undesirable delay, it was explained.

"Unfortunately," it was explained, "it is not yet possible to establish a rigid order of precedence for butadiene and accompanying products, ethyl benzene, cumene, codimer and isobutylene or di-isobutylene. On the other hand, there will not be conflicts in many cases."

It was suggested that potential participants in the program, in considering the application of the various processes to their situations, apply the following generalizations:

1. Present production and presently planned increases in production of 100-octane aviation gasoline components should be maintained.

2. 100-octane aviation gasoline construction program, if any, should not be interfered with, but it is permissible and desirable to convert existing equipment to produce codimer, di-isobutylene or ethyl benzene until such time as the new aviation equipment is started.

3. Temporary operations for periods of as little as six months are desirable.

4. Existing catalytic polymerization plants now in operation and not at present allocated to cumene production should be converted to codimer operation as described by the OPC.

5. Refiners not utilizing present production of isobutylene to make 100-octane aviation gasoline components should consider the installation of a cold acid extraction plant, as described by OPC, subject to the limitations of 1 to 4, above. Consideration should also be given in such cases to delivering the C_4 fraction or mixed C_3 and C_4 fraction to a nearby refinery already operating a catpoly, cold acid or alkylation plant.

6. Existing shut-down thermal cracking units not presently planned for use in the butadiene program should be considered for conversion to the production of ethyl benzene in accordance with the July 27 report of the Technical Advisory Committee.

OPC, therefore, urged all who can participate to respond promptly by sending proposals to the OPC director of refining. Four copies of each proposal are requested.

It was explained that proposals should describe the projects as completely as possible, including the completion date, daily production, effect on other refinery operations, present and future, and a list of major pieces of equipment available at the point where the unit is to be located, those available second-hand from other sources, and those which must be obtained new. The latter must be minimized, it was warned. At the same time the proposal is submitted, a regular priority application should be filed, which will receive prompt attention by the construction section of the refining division.

Refiners already producing any of the materials in question, other than cumene and butadiene, are requested to give OPC a report on the source, daily production and present disposition.

Farish Upholds Patents

[Continued from page 13]

tion of good intention, good faith and desire to settle any future questions rather than to attempt to stand always on strict legal rights.

"Fifteen years later," he said, "the anti-trust division labeled this letter a 'coordination agreement' supposed to link together the several contracts of 1929 into an imaginary 'world cartel' for the oil and chemical industries.

"To me the word 'cartel' means a combination of competitors to control production and fix prices."

The 1929 contract, Farish explained, was designed to solve difficulties and allay friction which had arisen under the original agreement. That, he pointed out, was the year in which the German Reichstag ratified the Kellogg Peace Pact. Under that agreement Standard bought, for the world outside of Germany, full control of and an 80 percent financial interest in all of I. G.'s oil and coal hydrogenation processes and other inventions on oil refining, the remaining 20 percet interest being left with I.G. to keep them "active and interested in helping Standard with the research to improve the processes.

"This straightforward purchase, widely hailed at the time in American newspapers, is the thing that is falsely labeled a world cartel for oil," he declared.

Farish asserted he never heard of the provision to keep the details of the agreement secret, assigned to the Stand-

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ard-I. G. contract by the Justice Department when found in an agreement between I. G. and the Shering Corporation, in which Standard never had any interest.

There were subsequent agreements, he told the committee, covering other important chemical products from oil, in which the two companies agreed not to invade each other's industrial field, something which Standard had not done for 50 years and had no intention of doing in the future.

"This agreement which I have just described to you is the anti-trust division's imaginary 'chemical cartel,' he argued. "It is the foundation of the claim that we violated the anti-trust laws of the United States. We were absolutely sure that the agreement was proper and constructive, that it would advance the interests of our Nation, the American oil industry, and our company. We were advised by the most competent counsel that it constituted no violation of the anti-trust laws."

Later, he continued, Standard worked out the Joint American Study Company (Jasco) agreement, in which the two companies were equal partners and into which I. G. was obligated to put many processes not yet commercially used, including the Buna rubber process, and the arrangement giving the party originating any process five eighths of the financial return therefrom was designed to equalize the situation resulting from the fact that Standard at the time had no new processes to contribute.

"The net result of the so-called 'chemical cartel' created by the 1929 general option agreement and the 1930 agreement implementing this general option was that Standard acquired a minority interest in a group of oil-chemical processes which I. G. had developed and owned and would have continued to own exclusively except for this arrangement," he emphasized. "Standard gave in return an agreement to sell to I. G. at a price to be determined at the time, control of chemical inventions entirely outside the oil industry, none of which inventions of any consequence Standard had made before or has made since. In addition we agreed to give a minority interest in Standard inventions in the oil-chemical field, outside of the lines in which Standard might be engaged at the time. Although Standard's oil-chemical business actually expanded ten-fold between 1929 and 1941, this expansion was in fields outside of the I. G. contract, and the first process of Standard's within the scope of this alleged world chemical cartel was the Butyl process, which will become a commercial reality in the United States for the first time this December, three years after the Jasco contract was completely revised to eliminate all interest of I. G. in the United States patents coming under the contract."

Specifically answering charges of Justice Department witnesses, Farish told the committee that Assistant Attorney General Patrick Gibson was "entirely wrong" when he said that Standard would not have had control of Butyl rubber, under the terms of the 1930 agreement.

"Butyl rubber has not been and cannot be made on a large scale except as part of an oil business," he asserted. "Furthermore, I. G. never even acquired a minority interest in Butyl rubber in the United States."

Special Attorney Irving Lipkowitz of the anti-trust division, he said, drew a distorted picture of Standard's operations in acetic acid, acetylene and acetaldehyde, on which Standard spent $1,500,000 in experiments which determined the patent to be worthless.

It was this patent which the department charged had been used in agreement with I. G. to suppress competition, but Farish pointed out that if I. G. wanted to do that "all it had to do was not to sign such a contract with us."

Paraflow developed from what I. G. chemists considered a "chemical curiosity," giving Standard a sample to "play with," but the American company never had any monopoly on it except that for 17 years given by the patent laws.

The methane steam process, which John R. Jacobs, a special attorney in the anti-trust division, charged was restrained to prevent the explosive industry from obtaining necessary licenses to increase war production, was owned by Standard only to make hydrogen for oil hydrogenation, and the company never held the rights on its use in making synthetic ammonia and so advised the government when the national defense program was being developed, and six large ammonia plants built under government sponsorship and producing about half of the emergency supply of ammonia are using the process.

Farish referred pointedly to the fact that Special Assistant to the Attorney General Robert M. Hunter, who spent three days before the committee interpreting 230 documents having to do with synthetic rubber, admitted he had no personal knowledge of such matters and no chemical background and might have distorted the picture of some matters widely as a result of his limited horizon.

Hunter, he intimated, was only one of many "experts" who have aired their views on rubber, but one of the few who have admitted their inadequacies.

He explained that Buna was a development of I. G. in which Standard had only a minority interest, but by the end of September, 1939, when the war broke out, an agreement had been worked out giving the company all of the rights for the United States and the British and French empires.

For 2½ years thereafter, Standard sought vainly to interest government agencies and rubber companies in the product. The rubber companies were interested, but despite the fact that on 46 occasions samples of various synthetic rubbers were submitted to seven different government agencies it was not until the middle of 1941 that the government undertook to do anything definite about Buna rubber production. Then it wanted a pool of all patents and all information on Buna, Farish testified; Standard threw in all its improvement patents without royalty and a royalty of one percent was allowed the company on its basic patents for the period of the emergency. Those patents, he said, are being used widely throughout the rubber and oil industries.

Farish explained that the recent consent decree was accepted by the company to avoid a long legal contest with the government in war time. The company did not therein admit, nor was it asked to admit, that it had violated the anti-trust law, but simply agreed that in the future it would follow the interpretations "now being given" by the department to the law.

"Our idea in signing the consent decree was to have done with the matter," he concluded.

"Like all other American business men, our primary concern right now is meeting the demand of war agencies for the production of miracles—demand for more and more production of better and better war weapons out of less and less plant equipment.

"To save time, material and lost motion in the production of war materials, the war agencies of our government are urging the most complete technical cooperation on the part of industry. In Buna rubber our company is in a pool with the leading rubber companies; in butadiene manufacture we are in a pool of four chemical and four oil companies; in styrene manufacture we are in a pool of four chemical and two oil companies; in alkylation processes for 100-octane gasoline we are in a pool of six companies; in catalytic cracking and in toluene production, pools are just now being set up in more effective form through consultation with war agencies."

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PRACTICAL OPERATING *Hints* FOR

1. *MAINTENANCE*

Gas-fired Vat Cleans Equipment for Shop

MAINTENANCE of much oilfield equipment may be greatly speeded if the grease and dirt accumulated during the service period be removed before reaching the shop crew.

One producer erected a rectangular steel vat, large enough to accommodate any piece of equipment, on a brick foundation behind the shop. In the bottom, extending within ½-inch of the sides, four lengths of 2-inch pipe are set to keep the work off the base, to protect it from damage, and to permit circulation of the cleaning solution around the work.

Pipe supports across the brick base transfer the load within the vat to the foundation without sagging the bottom, and are replaced as they become damaged by heat. Dual gas burners and a short stack at the back of the oven formed by the brick foundation permit the solution to be heated as desired, while a chain hoist on a jib crane spanning the vat and adjacent draining platform simplifies transfer of heavy units.

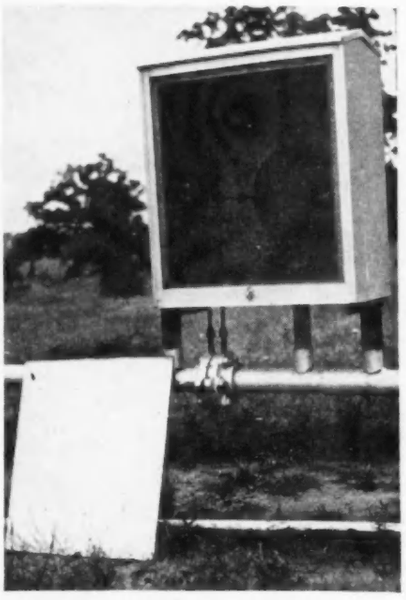
Carried on pipe supports, with similar spacer units laid within the rectangular tank, this unit permits heated solutions to expedite cleaning of dirt and paraffin encrustations.

2. *METERING*

Removable Back on Housing Saves Shifts

PROVIDING more than usual access to the line-mounted meter, a metal meter housing used by one company has standard hinged door at the front for chart changing, zero check or static adjustment, and a removable back which —normally padlocked in place—may be lifted to permit mercury change, general repair, float adjustment or inspection of connections at the rear of the unit.

The box is composed of sheet steel, supported on the usual pipe brackets welded to the meter run, and with a dovetailed back into which the removable section fits snugly and in a manner to defy removal without being first slipped off the padlock staple at the back of the heavy box floor.



Padlocked rear panel permits adjustment or check on recorder without need for removing unit or house

Constructed in this manner, the box affords the operator protection against mercury theft or tampering with his recorder, and the entire unit is adequately shielded against weather damage and maintenance thus reduced.

3. *TREATING*

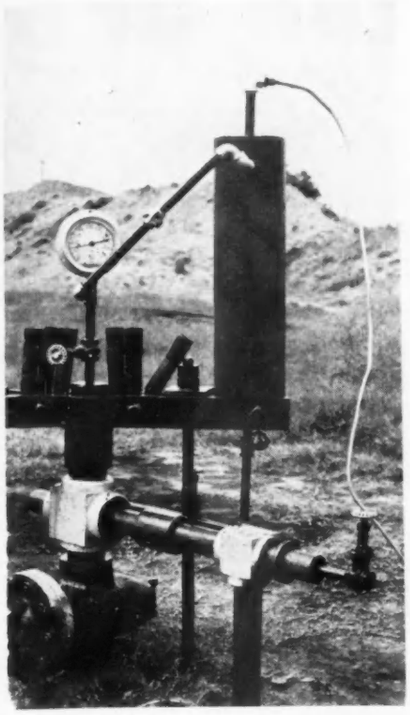
Gas Accumulator Aids Injector Regulation

AN accumulating tank for gas taken from the tubing for operating chemical injector serves the twofold purpose of drying gas and providing constant-pressure feed into the injector. A simple chamber is made of a short joint of 5-inch pipe, approximately 24 inches long, with circular plates welded at

THE practical operating hints for the drilling rig, production man and pipeliner, appearing regularly in these pages, are secured from oil operations everywhere and offer suggestions that will help to improve operating efficiency and safety.

The items give an excellent picture of the remarkable ingenuity being exercised by the operating divisions of the industry. Contributions to these features will be paid for at the rate of $5 for each illustrated item accepted. Address contributions to "The Editor, The Oil Weekly, Houston."

THE PRODUCTION MAN



Pipe section forms separator and storage unit for gas from well head to power chemical injection unit.

each end. Holes are drilled through the end plates to accommodate ½-inch nipples, and through one wall near the top, a single similar hole is cut.

The device is mounted on any convenient stand and set to operate in vertical position near the Christmas tree. From top of the tubinghead, a ½-inch line connects with the opening drilled into the wall of the cylinder, the line being equipped with a valve for control of flow, in addition to a pressure gauge. The hole through the top end plate is also fitted wtih ½-inch nipple, which is swaged for connecting with small copper tubing to the chemical injector.

A short ½-inch nipple, equipped with a valve, is inserted into the hole in the bottom plate, and serves as bleeder for emptying fluids or accumulated solids from the cylinder.

Free gas from tubing fluid is obtained from the Christmas tree, and is directed into the chamber. Solids and moisture collect at the bottom where they are later removed, while the remainder of the cylinder is filled with gas under pressure, which is metered to injector through the copper tubing. Gas storage assures constant feed, maintaining regular injection of chemicals at all times, with efficient performance of injector pump aided by receipt of clean, dry, gas and protected against liquid hammer.

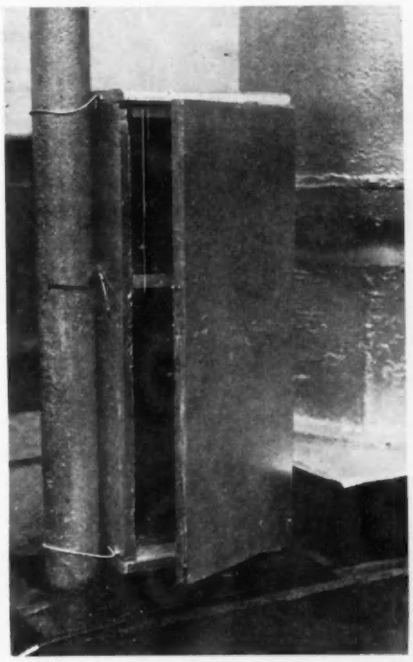
4. TOOL CARE

Box at Tank Battery Cuts Repair Time

THE pumper on one South Texas lease facilitates work on and around tank battery by constructing a small tool house in which wrenches, oils, and testing equipment are stored, tools being always available and easily found when needed. The house is located at the separator in a convenient site.

The structure is an upright box equipped with door, and stands 3 feet high by 14 inches wide and 14 inches deep. The inside is divided into two compartments, an upper and lower, separated by a shelf. Lower compartment is about two feet tall, providing space for standing wrenches and long-handled tools, while the upper section is adapted to keeping small items.

Door is made of a single board with hinges on one side. A home-made latch fastens the door to protect tools from elements, and is locked if desired. The house is clamped to vertical flow line which rises from the ground to enter separator, with clamps made of light wire at top and bottom of the box. Small dimensions of the tool box allow placing between flow pipe and separator body, hence it occupies no needed space.



Attached to flow line, this container keeps tools where needed, without cutting into working space.

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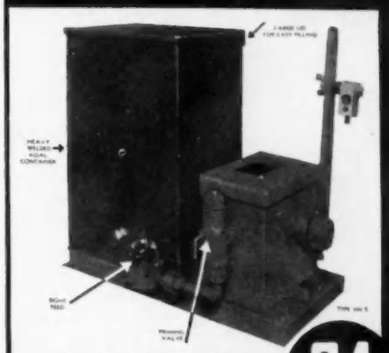

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The Week's News

OPC Raises Allowable Output for September

Production of petroleum liquids will again be increased next month, under recommendations issued by Coordinator Ickes August 21, placing total daily production for September at 4,066,500 barrels, compared with 4,038,500 barrels for August.

Nine states will be permitted to increase their output, the recommendations disclosed, while 11 will be reduced.

The greatest increase in output was assigned to California, where a September daily production of 791,500 barrels was recommended against 767,200 barrels for the current month. All three of the District 1 states were reduced; New York from 15,300 to 15,200 barrels, Pennsylvania from 52,800 to 52,300 barrels, and West Virginia from 17,300 to 16,600 barrels.

In District 2, Kansas and Ohio were given increases, the former from 281,900 to 285,000 barrels and the latter from 10,500 to 11,200 barrels, while all other states were cut, Illinois from 289,300 to 289,200 barrels, Indiana from 20,600 to 19,300 barrels, Kentucky from 14,100 to 14,000 barrels, Michigan from 66,800 to 66,700 barrels, Nebraska from 4,100 to 3,900 barrels, and Oklahoma from 415,500 to 415,300 barrels.

Increases were general throughout District 3, Arkansas being raised from 81,600 to 82,900 barrels, Louisiana from 332,600 to 334,800 barrels, Mississippi from 50,000 to 50,200 barrels, New Mexico from 97,300 to 98,100 barrels, and Texas from 1,396,700 to 1,397,800.

In District 4, Montana was increased from 22,700 to 22,800 barrels, but Colorado was cut from 7,200 to 7,000 barrels, and Wyoming from 95,000 to 93,400 barrels.

Texas Order Recognizes "War-Products" Crudes

Texas Railroad Commission's order for September fixes an allowable of 1,430,363 barrels daily. It estimated, however, that 5.38 percent, or 76,934 barrels daily would not be produced by the operators, so that net production would be about 1,353,309 barrels, or 44,391 barrels less than the 1,397,800 barrels daily recommended by OPC.

Although some reduction in the allowable was ordered, it will probably result in higher production for September, as the commission met pipe line proration squarely, cut those fields and at the same time continued the increases for fields, which could market their oil. The adjustment was accomplished by changing allowables for many fields, and by the application of six different shutdown schedules. Generally, fields will be closed in for 9 days, September 5, 6, 12, 13, 19, 20, 26, 27 and 30.

The following fields will be shut down for three days only, September 5, 6 and 12: Lolita, West Ranch, Lovell Lake, Amelia, Orange Grove, Sugarland, Clear Lake, Webster, Bonita, Clingingsmith, Fargo, Hoefle, Ringgold and Walnut Bend.

Wasson will be shut down six days, September 5, 6, 12, 13, 19 and 20.

Slaughter and Sand Hills-Permian will be shut down 11 days, September 2, 5, 6, 9, 12, 13, 19, 20, 26, 27 and 30.

Goldsmith, Keystone-Colby and Sand Hills-Ordovician will be shut down 13 days, September 2, 5, 6, 9, 12, 13, 16, 19, 20, 23, 26, 27 and 30.

South Cowden, Dune Keystone-Lime, Means, Penwell, Waddell and North Ward will be shut down 15 days, September 2, 5, 6, 7, 9, 12, 13, 16, 19, 20, 23, 26, 27, 29 and 30.

The following fields are exempt from all shutdowns: Darst Creek, Alta Loma, Luling-Branyon and Salt Flat. Cordele, Greta Deep, Heyser, Mellon Creek, Mission River, Oakville, Plummer, Refugio, Fox, Victoria. Arriola, Bammel, Barbers Hill, Batson New, Beaumont West, Boling, Buckeye, Clay Creek, Conroe, Cotton Lake, Cotton Lake South, Damon Mound, Danbury Dome, Eureka Heights, Eureka Heights Deep, Goose Creek, High Island, Hitchcock, Hull, Humble, Humble Light, Kubela, Livingston, Lochridge, Louise, Mercy, Magnet, Withers, Manvel Oligocene, Markham, Mykawa, Mykawa New, North Dayton, Orange West, Raccoon Bend Shallow, Raccoon Bend Cockfield, Sandy Point, Silsbee, Turtle Bay, Thompson South, West Columbia and West Columbia New. Boyle, Charamousca, Clara Driscoll 3800-foot sand, Eagle Hill, Minnie Bock, Moca, Seven Sisters, Samfordyce, North Samfordyce, Plymouth, Rincon and White Point. Mexia, Powell, Richland, Sulphur Bluff, Wortham, Boggy Creek, Cayuga, Grapeland, Lone Star, Talco, Rodessa and Trinity. Eastland, Erath, Loving and Stephens counties. Beddo, Big Lake, World. Hendricks, Howard-Glasscock, Iatan-East, Howard, Jamison-Pollard, Leck, Monroe, Taylor-Link, Snyder, Yates. Johnson in Cooke County, K-M-A-Ellenberger, Hults-Owens, Joy-Mississippi Lime, Antelope, Votsberger.

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California Allowable Raised To Boost Fuel Output

Califorina's crude-oil production quota for the last 15 days of August has been increased 23,800 barrels daily in order to provide additional fuel oil, upon recommendaiton of the production committee for District No. 5.

The new schedules will raise production to 750,000 barrels daily, the increase being based entirely on the fuel yield of various fields. Under the schedule, fuel-oil production is expected to be boosted 10,201 barrels daily.

The higher quota follows recommendation recently of District 5 general committee for higher fuel-oil output to offset heavy withdrawals of this product from storage. Exact storage figures are not available for publication, but it is known that for the first six months of 1942 withdrawals from fuel-oil storage in the territory approximated 55,000 barrels daily.

The new schedule opens fields whose crude yields 57 percent or more fuel oil to their maximum efficient rates of production. Pools whose production yields 32 percent or less fuel oil are decreased to 52.6 percent of their remaining allotments.

In comparison, the original August schedule gave maximum production to pools whose production yields 70 percent or more fuel oil, while decreasing pools of 32 percent fuel oil yield by 70 percent. Under the adjustment, all but a few pools receive some increase.

Increases were not given Coalinga Nose, Coalinga Northeast, Paloma, Ketlemen Eocene, Aliso Canyon Miocene, and Wilmington because such increases would cause blowing of gas to the air, which is specifically prohibited by OPC. The same condition applies to Santa Maria Valley, with the additional factor that at that field, transportation facilities also impose a limit to production volume.

Humble Is First Oil Company To Receive Army-Navy "E"

The Army-Navy Production Award was presented to Humble Oil & Refining Company's Ordnance Works in ceremonies August 21, at Baytown, Texas, marking the first time an oil company has received this distinction. The award was a red and blue flag with a white "E" in the center.

Colonel Herbert R. White, executive assistant to Major General L. H. Campbell, Jr., chief of ordnance, represented Under Secretary of War Robert P. Patterson, and presented the flag to H. C. Wiess, president of the company.

Lieutenant Commander J. R. Alexander, assistant inspector of naval materials, Houston district office, representing Under Secretary of the Navy James V. Forrestal, made the token presentation of "E" pins to H. C. Wiess and to H. G. Bailey, president of the Baytown Employes Federation. A token presentation of the pins was made to avoid a shutdown of the Ordnance Works. All employes were awarded special "E" pins.

The Army-Navy Production Award is the highest honor bestowed upon

industrial concerns engaged in the production of war equipment or supplies. Quality and quantity production in the light of available facilities are prime factors in selecting recipients for the award. The board which chooses the winners also considers: (1) overcoming of production obstacles, (2) avoidance of stoppages, (3) maintenance of fair labor standards, (4) training of additional labor forces, (5) effective management, (6) records on accidents, health, sanitation, and plant protection and, (7) utilization of sub-contracting facilities.

Carter Acquires Stock Of Leader Oil Company

The Carter Oil Company last week announced a purchase agreement has been reached with stockholders of Leader Oil Company, Tulsa, under the terms of which Carter will acquire all the stock of the Leader Company, owning valuable properties in Oklahoma and Kansas.

Stock of the Leader Oil Company is held principally by F. B. Parriott, Tulsa, and by the estate of his late partner, W. I. Southern. Parriott is president of the company.

Leader's assets in developed and undeveloped properties include 20,000 acres under lease in Kansas; also approximately 3500 acres in Oklahoma.

More specifically the company has approximately 5000 barrels daily average production from 179 wells in Kansas located in the Trapp area, Russell County; the Peace Creek pool, Reno County; and the Frog Hollow and Hittle pools in Cowley County.

Russians Effectively Destroy Maikop Oil

Official Russian reports last week declared all movable equipment and stored oil had been removed from the Maikop oil field before its seizure by the Germans and that the wells had been made "completely unusable." The Russian communique emphasized that the field would be of no value to the invaders for many months.

The Maikop field, normally yielding about 7 percent of total Russian production, produced an estimated 15,000,000 barrels last year. Production in 1937 was approximately 12,000,000 barrels. Although the Russians were still defending Krasnodar, where a 20,000-barrel refinery is located, this plant received its crude from the Maikop field. Maikop oil also fed the 50,000-barrel refinery at Tuapse, the Black Sea port which had been servicing the Russian fleet.

Fighting was in progress around Pyatigorsk, about 120 miles west of the Grozny oil district, as the Russians sought to defend that vital area from the Nazis, who seemed determined on driving eastward to the Caspian Sea in an effort to cripple Russia's oil supply.

Kansas Allowable Hearing Set for August 25

Kansas Corporation Commission has set August 25 as the date for establishing daily oil allowables for September.

Stanolind to Build Two North Texas Loops

Removal of a bottleneck in North Texas on Stanolind Pipe Line Company's Gulf Coast-Great Lakes system through the construction of two 12-inch loops has been approved by OPC and contract awarded for construction to start upon receipt of pipe. Insulation material has been delivered.

This project involves laying a 26.6-mile loop, parallel to two 8-inch lines between Graford and Bowie stations, and a 27.6-mile loop between Bowie and Healdton stations. In the latter section the company has two units and an 8-inch loop part way.

Facilities for handling sweet crude will be increased from 23,000 to 35,000 barrels daily by the new loops, while no change will be made in the capacity of the 8-inch that transports West Texas sour crude received at Ranger from Humble Pipe Line Company. Greater volume of Gulf Coast crude is to be routed north along with its East Texas field movement.

Sinclair Building Line To Serve Chapel Hill

Sinclair Refining Company has authorized the construction of 12 miles of pressure and gravity gathering lines in the Chapel Hill field, second largest producing area in East Texas. The company has been handling the output of Sinclair Prairie Oil Company's wells on the southwest edge of the field since last January through an 8-mile 4-inch discharge line to its East Texas field system. The enlarged gathering system will involve 6 miles of 6-inch gravity line from station site on south edge of structure, and 6 miles of 4-inch lines that will tie into all controlled oil and distillate production in north portion of field.

Houston-Baton Rouge Pipe Line Progressing Rapidly

Construction of the Bayou Pipe Line System, designed to deliver 60,000 barrels of products daily from Houston-Texas City and Beaumont-Port Arthur refineries to the initial station of the Plantation Pipe Line Company near Baton Rouge, Louisiana, has made a rapid start following final approval by the War Production Board.

Shell Pipe Line Corporation made application for a priorities rating for construction of the system, cryptically referred to as OPC Project 2(a). OPC, as sponsor of the project, assisted in getting approval of other government agencies concerned.

The line will be 8-inch from Baytown to Port Neches, Texas, and 10-inch from Port Neches to Baton Rouge, with feeder lines from several refineries. The System is the largest of the war emergency projects financed with private capital, approximately $7,200,000 being furnished by Humble Pipe Line Company, Shell Pipe Line Corporation, Texas Pipe Line Company, Pan American Pipe Line Company, Pure Transportation Company, and Crown Central Pipe Line & Transportation Corporation.

Seventy miles of the line will be 8-inch while 190 miles will be 10-inch. Old lines not in essential operations are being dismantled and removed from 10 sources in an area extending from the Panhandle to South Texas and from the Pecos River to the Mississippi. All the line pipe and major equipment, comprising three quarters of the total materials investment, will be obtained in this manner.

The System is a joint ownership of six common carriers — each owns a proportionate part in each facility, and will publish a separate tariff to apply to its share of the system's capacity. Shell Pipe Line Corporation has been selected to supervise the design, construction, operation, and maintenance.

Contracts were awarded to I. C. Little of Dallas for the 10-inch line and to O. R. Smith Contracting Company of Odessa, Texas, for the 8-inch segment. Bids have been asked for construction of two terminals at Baytown and Port Neches and 11 pump stations. Considerable work has been required to complete construction drawings and specifications since each terminal and station presents a separate design problem because of the contemplated use of a wide range of second-hand equipment.

F. W. Abrams, director of Standard Oil Company (New Jersey), is general director of the project. T. E. Swigart, president of Shell Pipe Line Corporation, is manager of the project. Design and construction is being directly supervised by H. H. Anderson, vice president, and D. H. Lewis, chief engineer of Shell Pipe Line Corporation.

The name "Bayou" was chosen for the system since it crosses a score of bayous and large rivers. The larger of these are the Houston Ship Channel and the Trinity, Neches, Sabine, Houston, Calcasieu, Atchafalaya and Mississippi rivers. Double 10-inch crossings will be laid under the Atchafalaya and Mississippi.

Canadian Oil-Sand Works Again Operating

"Gasoline, diesel fuel, various grades of fuel oil and coke are again being produced from the Athabaska oil sands by Abasand Oils Limited," reports Max W. Ball, president of the company. Fire destroyed a portion of the plant at Fort McMurray last November, but Ball states that operations have now been resumed. The rebuilt mining and separation units have a capacity of 600 barrels a day, but refining capacity has not yet been increased beyond the former 300 barrels per day.

"The new units are working most satisfactorily," Ball said, "with none of the difficulties previously encountered with certain other types of mining and conveying equipment. The average recovery is about nine tenths of a barrel per ton of sand.

"During the six months preceding the fire, the company produced 41,000 gallons of gasoline, 71,000 gallons of diesel fuel, 137,000 gallons of other fuel oils, and 320 tons of coke. The greater part of the company's diesel and fuel oil output goes to Consolidated Mining & Smelting Company of Canada Limited, for its northern operations, and this year's orders from Consolidated are approximately six times the amount supplied last year. Within the past few days, the United States Army at Waterways has requisitioned all of the company's diesel fuel in storage, and further requisitions by the army are probable."

Markets Reflect Scarcity Of Tank Cars and Supplies

Markets continue generally tight, with supplies scarce in the Middle West and upper Mid-Continent as well as in the East, while lack of enough tank cars also places restrictions on shipments.

On the East Coast there is continued concern over the abnormally light inventories of petroleum products, and there is no prospect of any betterment of the stocks situation, as all available supplies reaching the area are hungrily absorbed.

Especially serious is the prospective scarcity of heating oil for winter use, and authorities are urging conversion of oil-burning house-heating equipment to coal or other fuels and also better weather-proofing of homes. OPC hopes to effect increased movement of heating oils to the East, but OPA has rationing plans which will be employed if necessary.

In the Middle West, shipments are retarded by both scarcity of supplies and shortage of tank cars, and gasoline is reported to be especially difficult to obtain.

In Oklahoma and Kansas, deficiency of tank cars is the principal market problem, but some refiners are handicapped by inadequate stocks when cars are made available. In general, there is somewhat more demand than can be consistently supplied, because of lack of enough tank cars and supplies.

Gulf Coast refiners continue to suffer from the inadequacy of transportation. Although receiving inquiries from the East for all products, to be shipped by tank cars, barges, small tankers, or otherwise, they cannot take full advantage of the potential business because the shipping facilities are not equal to requirements.

Western Pennsylvania refiners cannot hope to supply all the products that would be eagerly purchased, but are meeting the demand as well as possible. Various products are completely sold out from time to time by different refiners, who are forced temporarily to discontinue offering, until stocks can be accumulated.

Petroleum Production in the United States

(Estimates compiled by The Oil Weekly. All figures indicate daily averages, in barrels)

STATE OR DISTRICT	[1]OPC Allocation in August	PRODUCTION IN WEEK ENDED Aug. 15	Aug. 22
Arkansas	81,600	72,500	72,500
California	767,200	731,500	726,500
Long Beach		36,000	35,800
Midway-Sunset		58,300	57,900
Kettleman Hills		39,800	40,300
Wilmington		96,400	94,100
Rest of State		501,000	498,400
Colorado	7,200	6,350	6,400
Illinois	289,300	255,250	280,350
Salem		39,450	41,250
Louden		45,000	47,450
Other New Pools		159,800	179,850
Old Pools		11,000	11,800
Indiana	20,600	19,000	16,900
Kansas	281,900	290,750	297,000
Kentucky	14,100	16,850	12,000
Louisiana	332,600	333,100	336,550
North Louisiana		97,050	96,700
South Louisiana		236,050	239,850
Michigan	66,800	62,450	63,200
Mississippi	50,000	78,900	77,700
Missouri		130	130
Montana	22,700	22,000	21,900
Nebraska	4,100	3,500	3,600
New Mexico	97,300	84,950	96,000
New York	15,300	12,300	13,850
Ohio	10,500	13,250	9,450
Oklahoma	415,500	376,750	380,150
Oklahoma City		65,900	69,350
Seminole Area		94,500	93,750
Rest of State		216,350	217,050
Pennsylvania	52,800	50,100	51,850
Tennessee		30	30
Texas	[2]1,396,700	1,384,450	1,402,350
Upper Gulf Coast		291,450	298,450
East Texas Field		360,400	359,850
Rest of Eastern Texas		95,050	89,050
Lower Gulf Coast		108,700	121,400
Southwest Texas		54,750	58,600
South Central Texas		18,700	18,450
West Texas		221,500	224,750
North Texas		139,000	137,650
Panhandle		94,900	94,150
Utah		15	15
West Virginia	17,300	9,150	10,050
Wyoming	95,000	94,000	95,100
Total United States	4,038,500	3,917,275	3,973,575

[1] Production rates recommended for states by Office of Petroleum Coordinator, on basis of Bureau of Mines forecast of the nation's daily average requirements for domestic crude during month. State conservation authorities except Texas Railroad Commission have prescribed allowables calculated to hold actual production within OPC regulations. (Details on state allowables published in The Oil Weekly of August 3, page 43.)

[2] Texas fields will be shut down on August 8, 9, 15, 16, 22, 23, 29, 30 and 31.

Chile Confronted With Serious Oil Shortage

Chile is confronted with a serious shortage of fuel oil and gasoline, consumed largely by her nitrate and copper industries, and is trying to obtain more of these essential fuels from the United States.

Chile is largely dependent on the United States and other Allied Nations for oil supplies, having imported from the United States and Netherlands West Indies a total of 4,272,000 barrels, mostly fuel oil, during 1940, the last year for which data are available.

Difficulty Continues in Supplying Fuel Oils

Latest statistics of the industry, covering the week ended August 15, showed less favorable results than in the previous week in providing urgently needed fuel oils. Stocks of light-fuel oil were increased less than in the week ended August 16 last year, and over a million barrels of residual fuel oil came from already inadequate storage. Figures on gasoline, however, were not cause for anxiety, as there was a moderate withdrawal from storage, which probably was justified by the outlook for gasoline demand.

Crude runs to stills were increased sharply, having been comparatively low in the previous week. For the August 15 week they averaged 3,711,000 barrels daily, up 150,000 from the week before but 279,000 barrels or 7 percent under the runs of 3,990,000 daily in the August 16 week last year. The refineries of the nation thereby utilized 77 percent of their capacity. Runs were approximately unchanged or up in all districts. For the East Coast and Southwestern districts, combined runs were up 43,000 barrels to 1,670,000 daily, representing 68 percent of capacity. Apaplachian and Middle Western plants operated at 93 and 92 percent, respect tively, and Oklahoma-Kansas at 88 percent. California refiners charged to stills 683,000 barrels of crude daily, or 84 percent of capacity.

The national inventory of gas oil and distillate fuel was increased 1,017,000 barrels in the week ended August 15, and then totaled 40,041,000 barrels. However, nearly 1,500,000 barrels was added in the like week last year. The

Trends of Operations and Changes in Stocks

Figures on crude stocks are from Bureau of Mines weekly reports; all others from American Petroleum Institute weekly reports, which are estimates on Bureau of Mines basis.

ITEM	Crude Oil Prod. Bbls. Day (Add 000)	Week Ended	Runs to Stills Bbls. Day (Add 000)	Week Ended	Crude Stocks Bbls. (Add 000)	Week Ended	Gasoline Stocks Bbls. (Add 000)	Week Ended	Gas Oil & Distillate Stocks Bbls. (Add 000)	Week Ended	Residual Fuel Oil Stocks Bbls. (Add 000)	Week Ended
Highs:												
1939	3,910	8- 5	3,650	10-21	278,607	5-26	87,769	4-22	39,562	10-28	116,237	8-26
1940	3,890	3-16	3,690	6-22	265,865	8-31	102,817	4-20	49,051	10-19	109,135	9-14
1941	4,337	11-22	[4]4,120	10-18	266,187	3-29	99,727	3-29	[5]54,983	11-15	102,448	1- 4
1942	[4]4,337	2- 7	3,961	1- 3	263,208	3-28	[1]107,229	3-14	49,357	1- 3	95,857	1- 3
Lows:												
1939	[3]1,601	8-26	3,125	2-18	[2]229,127	10-21	71,152	10- 7	20,722	4-15	105,397	4- 8
1940	3,335	11-30	3,370	1- 6	237,339	1-27	79,847	11- 9	23,551	4- 6	102,344	2-10
1941	3,364	1-11	3,490	1-18	240,399	11-15	80,870	10- 4	28,381	4-12	90,914	7-12
1942	3,297	7- 4	3,393	5-23	244,364	1-10	80,708	8-15	29,240	4-25	76,903	7- 4
Trends in 1942 (Week Ended):												
Jan. 3	4,038	.....	3,961	.....	244,440	.....	92,987	.....	49,357	.....	95,857	.....
Jan. 31	3,871	.....	3,848	.....	250,740	.....	97,810	.....	40,674	.....	91,189	.....
Feb. 28	4,016	.....	3,675	.....	259,373	.....	105,635	.....	34,547	.....	88,285	.....
Mar. 28	3,820	.....	3,667	.....	263,208	.....	105,624	.....	31,756	.....	83,045	.....
April 25	3,581	.....	3,506	.....	257,073	.....	102,897	.....	29,240	.....	81,107	.....
May 30	3,877	.....	3,522	.....	255,023	.....	95,355	.....	31,384	.....	79,628	.....
June 27	3,719	.....	3,581	.....	253,364	.....	88,396	.....	32,851	.....	77,304	.....
July 25	3,691	.....	3,658	.....	249,262	.....	82,281	.....	35,966	.....	77,816	.....
August 1	3,383	.....	3,672	.....	248,336	.....	81,324	.....	37,530	.....	78,383	.....
August 8	3,970	.....	3,561	.....	246,975	.....	81,277	.....	39,024	.....	78,575	.....
August 15, 1942	3,893	.....	3,711	.....	.....	.....	80,708	.....	40,041	.....	77,422	.....
August 16, 1941	3,953	.....	3,990	.....	[4]251,945	.....	82,312	.....	45,368	.....	93,365	.....
Change:												
In week	—77	.....	+150	.....	—1,361	.....	—569	.....	+1,017	.....	—1,153	.....
In year	—60	.....	—279	.....	—4,970	.....	—1,604	.....	—5,327	.....	—15,943	.....
In year	—1.5%	.....	—6.9%	.....	—1.9%	.....	—1.9%	.....	—11.7%	.....	—17.0%	.....

[1] All time peak. [2] Lowest since April, 1922. [3] Lowest since October, 1922, due to shutdown of six Mid-Continent States. [4] Stocks, August 9, 1941.

present stocks are 5,327,000 barrels (11.7 percent) under those of 45,368,000 barrels held at this time last year. For the East Coast-Southwest districts, there was for the week an addition of 733,000 barrels to storage.

Residual fuel oil stocks in the United States were reduced 1,153,000 barrels in the week ended August 15, having declined to 77,422,000 barrels. The national inventory now on hand is 16,000,000 barrels (17 percent) smaller than that of 93,365,000 barrels held at this time last year. As heretofore, the principal difficulty in providing sufficient of the heavy fuel is in California, where an 835,000-barrel withdrawal occurred during the week, leaving on hand 53,448,000 barrels. For the East Coast-Southwest districts, however, there occurred also a withdrawal, in the amount of 274,000 barrels. The Middle West was the only district showing an addition to storage.

Gasoline stocks in the United States were lowered 569,000 barrels in the week of August 15, having come down to 80,708,000 barrels. That quantity was 1,600,000 barrels less than the amount on hand at the middle of August last year, a decrease of 2 percent. All districts made withdrawals except California, which added 150,000 barrels. For the East Coast and Southwest, the decrease in stocks was 66,000 barrels, while the Middle West and upper Mid-Continent each took out nearly 300,000 barrels.

Crude oil production averaged 3,893,000 barrels daily in the week ended August 15, down 77,000 from the previous week but off only 60,000 barrels (1.5 percent) from the output in the corresponding week last year, which averaged 3,953,000 barrels per day.

Stocks of crude oil in the United States have continued to decrease. They came down 1,361,000 barrels in the week of August 15 to 246,975,000 barrels, a new low since early January of this year. The present inventory is 5,000,000 barrels (2 percent) smaller than that held at this time last year.

Natural Gasoline Output Gained Slightly in June

Daily average production of natural gas and allied products increased in June to 9,181,000 gallons from 9,102,000 gallons in May, it was shown by the monthly report of the Bureau of Mines, but the shorter month brought total output down to 275,436,000 gallons from 282,156,000 gallons.

The output of liquefied petroleum gas continued to increase during the month and was 50,946,000 gallons compared with 48,426,000 gallons in May, while liquefied refinery gas output dropped to 21,042,000 gallons from 21,798,000 gallons.

Production of natural gasoline totaled 162,792,000 gallons compared with 170,436,000 gallons in May, output of cycle products was 52,206,000 gallons against 53,760,000 gallons, and isobutane produced at plants was 9,492,000 gallons against 9,534,000 gallons.

Stocks of natural gasoline and other light products decreased slightly in total, an increase from 111,006,000 to 112,182,000 gallons at refineries being more than offset by a decrease from 164,850,000 to 161,532,000 gallons at plants and terminals.

Oil Industry Urged To Maintain Trucks

The job of preserving the trucks of America and the trucking business is more important than just preserving jobs, refiners, marketers and jobbers were told August 20 at Houston by Office of Defense Transportation spokesmen.

The meeting of oil industry truckers was one of a series being held throughout the Mid-Continent, and which are being conducted by Robin S. Williams and Herman Groth, both of the Vehicle Maintenance Division of ODT.

Williams outlined briefly the plan whereby truck manufacturers and dealers, tire manufacturers and dealers, oil companies and service stations and parts manufacturers and distributors are cooperating to keep rolling the approximately 5,000,000 trucks in the United States. He discussed a 16-page booklet entitled "America's Trucks," which describes the essential details of a practical preventive maintenance program that can be followed by every operator.

It contains a letter from President Roosevelt, which declares the necessity for better preventive maintenance during the war emergency, and asks all truck owners and drivers to cooperate.

Williams pointed out that the oil industry had fared better in its truck-maintenance program than any other industry. The industry at the beginning of the war owned and operated approximately 130,000 trucks. These vehicles, it was said, were better cared for than thousands of similar vehicles in other industries.

Of the 5,000,000 trucks in operation in the country, the speaker said 90 percent are light vehicles—two-ton capacity types and under. Due to the reliance of approximately 40,000 communities upon truck transportation, it is important that as many of these trucks be kept rolling as is possible.

If failures occur in motor transportation system they will cost more than the lives that are ordinarily lost in highway accidents. They may cost the lives of whole companies of men at the front if the men are not supplied with all the implements of war that they need. A breakdown of the transportation system of a country at war may lose the war.

There are indications, it was said, that the reason for the failure of the German winter campaign was the breakdown of German army transportation. The job of "keeping 'em rolling" is a serious job. The best way to keep 'em rolling is to keep 'em fit.

This objective can be accomplished, the speaker said, only through the interest and cooperation of all concerned. This means the general public, the trade press, truck manufacturers and dealers, and other concerns normally concerned with promotion of truck transportation.

To aid this maintenance program, ODT is organizing what is known as the United States Truck Conservation Corps. Members are truck owners who sign the ODT pledge to maintain their equipment properly. The ODT is soliciting the assistance of all automotive organizations to maintain and conserve the nation's motor economy. A big phase of this program is being achieved in cooperation with the oil industry.

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U. S. Field Operations

Illinois Basin

Hamilton and Jefferson Wildcat Work Increasing

Testing Clay County wildcat. Wildcat activity in Hamilton and Jefferson counties increasing. Drilling outpost to new St. Jacob field of Madison County; large Gallatin producer completed.

Clay County: Kingwood Oil Co.'s Essen 1, NW SE 20-5n-7e, six miles north of Louisville and two miles south of the Bible Grove field, cleaning and testing Aux Vases sand at 2750-60 ft after 30-quart shot. There was no gauge.

Hamilton County: Magnolia Petroleum Co.'s S. A. Moore 1, NE NE 33-5s-5e, 3 miles southwest of Rural Hill field and 7 miles southwest of McLeansboro, waiting on surface cement.

Sun Oil Co.'s Swank-White 1, C E½ SE SW 30-5s-6e, 3 miles southwest of McLeansboro and 3 miles west of the Hoodville pool, spudded.

Jefferson County: Skelly Oil Co.'s J. E. P. Coal Co., SE SE SW 29-3s-1e, 1½ miles southwest of the Woodlawn pool, drilling below 1800 ft.

Carter's Interstate Coal Co. 1, SW SE 26-3s-1e, 3 miles east of the Skelly wildcat, drilling below 1935 ft.

Madison County: Kingwood Oil Co.'s L. Hirsch 1, SW SE SW 9-3n-6w, just west of the village of St. Jacob and ½ mile northwest of the discovery well of the St. Jacob Trenton pool, scheduled to spud.

Gallatin County: B. M. Heath's Edwards 1, NE NE 21-7s-8e, has been completed as one of the largest producers yet drilled in the county. After a 60-quart shot of nitro the well flowed 370 bbls from Aux Vases at 2947-69 ft. The operators had Edwards 2 at Aux Vases depth.

Kentucky

Union County: Pure Oil Co.'s Kingdon 1, SE SE 10-0-19, 4 miles northwest of Morganfield, set casing at 2530 ft to test promising saturation in lower O'Hara sands at 2547-51 feet, which on drill-stem test flowed clean oil for 30 minutes.

Henderson County: A. W. Cherry and Barron Kidd's Burbank 1, SW 24-Q-21, 2½ miles northwest of Smith Mills, and 10 miles west of Henderson, pumped 103 bbls of oil in 18 hrs from McClosky lime at 2674-83 ft after 2000 gallons of acid. To the northwest, an offset, Sinclair Wyoming Oil Co. staked location for N. W. P. Cooper 1, SW NW SW 24-Q-21.

Indiana

Vanderburgh County: S. C. Yingling's Gerlach 1, SE SE SW 17-7s-11w, wildcat, was dry through the Waltersburg sand and abandoned at 1760 ft. Starting at surface elevation of 370 ft, Waltersburg, 1697-1740 ft, showed water.

ILLINOIS FIELD COMPLETIONS

Clay County—Walter Duncan's Partridge 1, nw se se 2-3n-7e, McCl 2947-53 ft, 192 bbls, 2955 ft.

Texas Co.'s C. Nadler 2, cne se 5-5n-7e, Weiler 2483-2510 ft, 154 bbls, 2845 ft.

Texas Co.'s Landwehr 2, nw nw ne 9-5n-7e, Weiler 2487-2502 ft, 18 bbls, 2840 ft.

Clinton County—Texas Co.'s Ward 1, sw ne ne 2-2n-2w, Ben 1212-30 ft, 164 bbls, 1230 ft.

Fayette County—Carter's Crum 4, csw ne 16-7n-3e, Weiler 1560-76 ft, 12 bbls, 1576 ft.

Results on Industry's Prospecting Fronts

Completion of 75 wildcat tests during the week added 7 oil producers, making 271 oil strikes since January 1 among 1942 wildcats completed.

Rocky Mountain Area: Wildcat work is at 10-year high.

Illinois: Wildcat work increasing in Hamilton and Jefferson counties.

Gulf Coast: Mercy field in San Jacinto County has extension in prospect; Harris County wildcat testing. Jim Wells and Colorado County wildcats indicate success. Louisiana side quiet.

North Louisiana: Moorehouse Parish wildcat showing oil.

Kansas: New Arbuckle field in Rooks County. Drilling work continues at high level.

Carter's Fortner 3-D, se se ne 10-8n-3e, Devonian 3136-40 ft, 100 bbls, 3140 ft.

Gallatin County—Buell & Herndon's Egyptian Tie & Timber 4-A, csw sw sw 15-8s-10e, Walts 1983-1991, 35 bbls, 1991 ft.

Skelly's Egyptian Tie & Timber 2, ne sw ne 21-8s-10e, Walts 1986-97 ft, 12 bbls, 1998 ft.

Hamilton County—Pure's Union Central Life 1, csw sw 31-5s-7e, AV 3024-32 ft, 84 bbls, 3032 ft.

Texas Co.'s Betts 1, nw se sw 11-6s-6e, AV 3098-3104 ft, McCl 3231-40 ft and 3217-22 ft, 15 bbls, 3314 ft.

Shell and Pure's Rawls 2, cne nw 12-6s-6e, AV 3022-41 ft and 3045-54 ft, 8 bbls, 3062 ft.

Kingwood Oil Co.'s Shelton 1, nw sw ne 18-6s-7e, AV 2994-3000 ft and 3011-23 ft, 373 bbls, 3048 ft.

Shell's Morris-Shelton 1, nw se nw 18-6s-7e, AV 3028-64 ft and 3067-75 ft, 654 bbls, 3089 ft.

Texas Co.'s Hall B-4, nw ne se 18-6s-7e, AV 3011-32 ft, 646 bbls, 3036 ft.

Jasper County—Olson Oil Co.'s Edgar Kraus 1, csw se 6-5n-14w, McCl 2847-55 ft, 220 bbls, 2877 ft.

Simon Lebow et al's Derler-Reis 1, cse ne 7-5n-14w, McCl 2852-67 ft, 197 bbls, 2869 ft.

Pure's Bowers Consol. 1, csw se 5-5n-10e, McCl 2832-37 ft, 296 bbls, 2850 ft.

Pure's Dillman 2, cse sw 18-5n-10e, abnd 2915 ft.

Pure's Stanley 4, csw se 18-5n-10e, McCl 2843-45 ft, 99 bbls, 2870 ft.

Lawrence County—L. S. Heath's Green 1, nw nw se 27-2n-12w, abnd 2035 ft.

Macoupin County—W. R. Holmes' Stouffe 1, ne ne sw 21-8n-8w, abnd 465 ft.

Madison County—M. D. Bryant et al's Kirri Comm. 1, sw sw ne 16-3n-6w, Trenton 2374-93, 395 bbls, 2393 ft.

M. D. Bryant et al's Meyer 1, wo, sw ne se 16-3n-6w, Trenton 2343-70 ft, otd 2354 ft, 401 bbls, 2370 ft.

Marion County—Texas Co.'s J. Mazaned 2, ne ne sw 36-4n-2e, abnd 2335 ft.

Richland County—Bonpas Dev. Co.'s Woods 3, cs½ se 21-2n-14w, McCl 3054-61 ft, 135 bbls, 3069 ft.

Pure's J. O. Coen 25, cnw sw 9-3n-9e, Cyp 2595-2623 ft, 64 bbls, 2650 ft.

Roy R. Powers et al's Wright 1, cne se 25-5n-9e, temp abnd 2951 ft.

Gulf et al's Ritter 1, se se ne 35-5n-10e, McCl 3010-20 ft, 83 bbls, 3033 ft.

Gulf's Hahn 1, se nw ne 36-5n-10e, McCl 3013-20 ft, 264 bbls, 3026 ft.

Wabash County—Magnolia's H. Milburn 1, cse 20 - 2s - 13w, McCl 2839 - 44 ft, 15 bbls, 2900 ft.

Wayne County—Gulf's Wilson 3, cse ne 19-1s-5e, abnd 2925 ft.

White County—Longhorn Oil Corp.'s Helm 35, ne se nw 22-3s-14w, pay 2110-49 ft, 400 bbls, 2149 ft.

P. O. Wall's Kershaw 2, se nw ne 22-3s-10e, abnd 2902 ft.

Jarvis Bros. and Marcell's Spencer 3, ne ne sw 31-4s-11e, Tar Spgs 2307-20 ft, 35 bbls, 2324 ft.

Tide Water's Bacon 12, cnw se 5-5e-14w, Ben 2720-53 ft, AV 2840-53 ft, 85 bbls, 2860 ft.

ILLINOIS WILDCAT COMPLETIONS

Clay County: Failure—Lain O & G Co.'s Haynes-McConnell 1, sw ne ne 25-3n-5e, abnd 2976 ft.

Pure's Welsh 1, cnw sw 25-3n-7e, abnd 3185 ft.

Clinton County: Failure—Texas Co.'s C. Zimmerman 1, ne se se 19-2n-1w, abnd 2970 ft.

A. W. Gerson et al's L. Keister 1, sw sw se 33-2n-1w, abnd 1510 ft.

Smokey Oil Co.'s George Hord 1, nw sw se 11-3n-2w, abnd 1294 ft.

Effingham County: Failure—Kingwood Oil

U. S. Drilling Operations in Week Ended August 22, 1942

STATE	ALL WELLS COMPLETED THIS WEEK Total	Oil	Gas	Dry	†Miscel.	Total 1942	Total this Date 1941	WILDCATS COMPLETED‡ THIS WEEK Total	Oil	Gas	Dry	Distillate	Total 1942
Alabama						3	1						3
Arizona						2							2
Arkansas	4	2		2		83	109						8
California	6	5		1		454	742						40
Colorado	1	1				9	11						
Georgia						2	1						2
Illinois	49	29		20		1,266	2,381	14	1		13		362
Indiana	4	1		3		255	351	2	1		1		61
Iowa						5							
Kansas	42	22		18	2	1,058	1,438	12	1		11		242
Kentucky	3	1		2		93	196	2			2		23
Louisiana	18	10		8		647	914	4			4		98
Michigan	10	6		4		441	517	5	1		4		111
Mississippi	4	1		3		73	117	3			3		20
Missouri						16	41						
Montana	23	9	11	3		133	129						
Nebraska	1			1		27	56	1			1		13
New Mexico	9	1		8		269	235	4			4		31
New York	29	15	1	1	12	790	582						1
Ohio	18	10	6	2		704	1,061						
Oklahoma	21	9	2	8	2	952	1,384	4	1		3		197
Pennsylvania	43	39	4			2,332	2,620						
Tennessee						7	14						
Texas	85	40	10	33	2	3,842	6,569	24	2		22		755
Utah							1						
Virginia						1							
West Virginia	13	2	8	3		478	427						
Wyoming	6	2	2	2		57	88						3
Total this week	389	205	44	122	18	13,994	19,990	75	7		68		1,972
Total last week	372	211	24	98	39	13,606	19,265	78	12		66		1,897
Total this year	13,994	7,448	1,168	3,645	1,733			1,972	271	30	1,666	5	

† Includes old wells deepened, water intake, gas input, salt water disposal, and distillate wells.
‡ OPC program calls for 4,000 wildcats in 1942, of which 624 should produce oil and 116 gas, leaving 3,260 dry.

Co.'s G. Wendte 1, nw ne se 21-6n-7e, abnd 3032 ft.

Franklin County: Failure—W. C. McBride's Jones 1, nw ne nw 29-5s-3e, abnd 3127 ft.

Gallatin County: Failure—Carter's G. Brockett 1, cse nw 23-7s-8e, abnd 3085 ft.

Jasper County: Failure—Kingwood Oil Co.'s Martin 1, cnw sw 23-7n-10e, abnd 2731 ft.

Jefferson County: New Field—Lario O&G et al's Starr Bros. 1, nw sw sw 1-3s-4e, L. O'Hara 3076-86 ft, 190 bbls, 3214 ft.

Marion County: Failure—C. S. Beck's Phelps 1, ne nw ne 20-1n-4e, abnd 2874 ft.

Perry County: Failure—Magnolia's Restoff 1, se ne sw 13-4s-1w, abnd 1905 ft.

Richland County: Failure—Gulf's Wakefield 1, se se nw 28-5n-9e, abnd 3181 ft.

Saline County: Failure—Brooks et al's V. Suttner 1, cn½ se nw 7-8s-7e, abnd 2961 ft.

ILLINOIS WILDCAT STARTS

Clay County—Mid Sun Oil Corp.'s G. Davis 1, cn½ ne nw 8-4n-6e, dr.

A. H. Gibson's Chaffin-Armstrong 1, se nw se 4-3n-7e, lcn.

Clinton County—H. A. Harmon's M. Reed 1, sw sw se 1-2n-2w, lcn.

Franklin County—Bell & Zoller Coal Co.'s Ziegler Coal Co. 2, se sw ne 36-7s-1e, dr.

Gallatin County—Kincaid & Gill's Schmitt 1, ne ne nw 33-7s-10e, lcn.

Jasper County—D. C. Stem's Deck & Derler 1, 120 ft s of nw ne nw 20-5n-14w, lcn.

Olson Drlg. Co.'s Berry 1, se sw se 15-5n-9e, lcn.

Helmerich & Payne's Stiff 1, se nw se 23-5n-10e, lcn.

Jefferson County—Ohio's Ill. Central 1, cn½ nw se nw 34-2s-4e, lcn.

Pugh-Shell's Huff Nelson Comm. 1, nw se ne 35-2s-4e, lcn.

Carter's Interstate Coal Co. 1, csw se 26-3s-1e, lcn.

Skelly's J. F. P. Co. 1, se se sw 29-3s-1e, lcn.

Monroe County—R. A. Thompson's Schuckardt 1, ne ne nw 10-2s-10w, comp.

Richland County—Ohio Oil Co.'s G. P. Nelson 1, nw nw se 20-3n-10e, dr.

Saline County—W. G. Fortner et al's Tison 1, cn½ se ne 26-7s-6e, dr.

Smokey Oil Co.'s Barger 1, cse se 13-10s-5e, lcn.

Wayne County—Gulf & Lario's A. Bunoughs 1, se sw nw 2-1n-5e, lcn.

Carl Robinson et al's C. W. Osborne, cnw se 17-2s-8e, lcn.

INDIANA FIELD COMPLETIONS

Posey County—Lennan et al's Louis Uhde 1, csn nw 13-7s-13w, abnd 1971 ft.

Spencer County—Troy Refg. Corp.'s Otto Hayden 1, sw sw se 22-6s-5w, abnd 950 ft.

INDIANA WILDCAT COMPLETIONS

Gibson County: New Field—Kirk D. Holland's Collins 1, e½ nw se 26-1n-10w, McClosky 1774-78 ft, 179 bbls, 1786 ft.

Laporte County: Failure—Elmer Hostetter's Donald Zahn 1, se sw sw 14-33n-4w, abnd 145 ft.

INDIANA WILDCAT STARTS

Morgan County—Wayne Co. Producers' Frederick Taylor 1, nw sw ne 22-13n-1w, lcn.

Vanderberg County—S. C. Yingling's Wm. Gerlach 1, ne se sw 17-7s-11w, lcn.

KENTUCKY FIELD COMPLETION

Hancock County—J. E. Hare's J. Cheffin 2, 3-O-34, Tar Sprgs 370-78 ft, 15 bbls, 383 ft.

KENTUCKY WILDCAT COMPLETIONS

Henderson County—Basin Drlg. Co.'s Gus Strahl 1, 19-Q-26, abnd 2042 ft.

McLean County—Mike Callas' A. C. Ashby 1, 12-M-29, abnd 1335 ft.

Kansas

New Arbuckle Field In Rooks County

New field in Rooks County, Arbuckle area. New production indicated 3 miles north of Russell field. Second try in Dodge City Basin area. Another Simpson-Wilcox well showing in Lindsborg.

Rooks County: What began as a stratigraphic test has been tested as a pool opener from Arbuckle lime at a point southeast of Webster production. Continental's Barry 1, NEc 11-9-19w, drilled lime from 3434 to 3460 ft, filled to top and slopped over.

Russell County: British American's Ehrlich 1, SWc NW 15-13-14w, three locations north of Russell pool plugged back from dry Arbuckle to 2947-3006 ft in Kansas City-Lansing lime, perforated, reperforated and obtained substantial fill-ups. Well has not completed but indicates new field or extension of Russell production.

Edwards County: Cities Service's English 1, NEc 8-25-16w, is still testing shows in its Dodge City Basin wildcat. Another location in this vicinity has been made by Herndon Drilling Company, Long 1, NW NE SE 27-26-16w.

McPherson County: A second Simpson well is showing in Lindsborg field at Auto Ordnance's Sundell 1, C W½ SE NE 8-17-3w, a 40-acre east offset to the Simpson discovery. Well topped section at 3449 ft to log porosity and saturation to 3451 ft.

KANSAS FIELD COMPLETIONS

Barton County: Stickney—Skelly's Michaelis 2, se nw ne 30-16s-13w, Arb 3398 ft, 3000 gals acid, pump 762 bbls, 3400 ft.

Barton County: Kraft Prusa—C. E. Ash's Rodenberg 1, ne se se¼ 5-17s-11w, Arb 3312 ft, 3000 gals acid, pump 180 bbls, 3312 ft.

Barton County: Kraft Prusa—Vickers' Soeken A-3, ne se se 21-17s-11w, 10-in 43 ft, abnd.

Butler County: Eldorado—Cities Service's Wilson 220, ne nw sw 9-25s-5e, Kansas City 1969 ft, 2000 gals acid, pump 25 bbls oil, 45 wtr, 2028 ft.

Cowley County: Couch—Adair & Morton's Holt 1, sw sw sw 1-30s-5e, Miss 2868 ft, abnd 2898 ft.

Ellsworth County: South Wilkens—Cities Service's Ploog C-1, c se ne 32-17s-9w, Arb 3241 ft, abnd 3275 ft.

McPherson County: Henne—H & M Drlg. Co.'s Platt 1, cs½ se se 17-17s-1w, Miss 2630 ft, abnd 2639 ft.

McPherson County: Lindsborg—Auto Ordnance's Johnson 1, cw½ sw ne 8-17s-3w, Viola 3310 ft, pay 3310-3316 ft, pay 3368-3378 ft, Simpson 3451½ ft, flow 50 bbls, 2247 bbls, 3460 ft.

Auto Ordnance's Sundquist 1, cw½ nw sw 8-17s-3w, Viola 3355 ft, 7500 gals acid shot with 5 qts, pump 145 bbls, 3378 ft.

Phillips County: Dayton—Carter's Schutz 1, cse se 26-2s-19w, Lansing 3233 ft, ripped csg 3234 ft to 3391 ft, 5000 gals acid, pump 132 bbls, 3430 ft.

Carter's Eltiste 3, cnw nw¼ 36-2s-19w, Lansing 3213 ft, 1000 gals acid, pump 387 bbls, 3408 ft.

Carter's Eltiste 1, cse ne 2-3s-19w, Lansing 3120 ft, 6500 gals acid, pump 349 bbls, 3230 ft.

Reno County: NE Peace Creek—Cities Service's Keesling 1, sw sw sw 1-23s-10w, Viola 3733 ft, 500 gals acid, flow 160 bbls, 3000 bbls, 3745 ft.

Cities Service's Hinshaw B-2, sw ne ne 11-23s-10w, Viola 3756 ft, 500 gals acid, flow 20 bbls, 3000 bbls, 3765 ft.

Reno County: Peace Creek—Cities Service's Krey C-1, sw ne ne 22-23s-10w, Viola 3771 ft, 500 gals acid, pump 9 bbls, 12% wtr, 3779 ft.

Rice County: Orth—Bartlett & Crumm's Schultz 1, cw ne nw¼ 22-18s-10w, Arb 3245 ft, pay 3258-3263 ft, swab 30 bbls, 3263 ft.

Rice County: Smyres—Continental's Carlson 3, ne se ne 36-19s-6w, Miss 3417 ft, pb 3448 ft, shot 40 qts, pump 403 bbls oil, 11 bbls wtr, td 3452 ft.

Continental's Braden 1, ne nw ne 1-20s-6w, Miss 3387 ft, pb 3402 ft, ripped csg, shot 29 qts, pump 4 bbls oil, 30 wtr, td 3416 ft.

Rice County: Chase—Cities Service's Young 4, cse se 8-20s-9w, Arb 3273 ft, 1900 gals acid, pump 635 bbls, 3289 ft.

Russell County: Greenvale—Jones & Shelbourne's Gray 1, cs¼ sw sw, 33-14s-12w, Lansing 2895 ft, pb 3175, perf 2982-2996 ft, 13,000 gals acid, pump 656 bbls, 3212 ft.

Russell County: Hall-Gurney—Colorado Pet.'s Rogg 1, nw nw se 32-14s-13w, Arb 3142 ft, Lansing 2861 ft, perf, 9500 gals acid, pump 8 bbls oil, 400 wtr, 3142 ft.

Stafford County: Gates—W. B. Faulkner's Keenan 1, ce½ ne sw 21-21s-13w, Arb 3729 ft, abnd 3736 ft.

Stafford County: Unnamed—W. B. Faulkner's H. C. Hufford 1, ce½ ne nw 28-21s-13w, Simpson 3785 ft, abnd 3806 ft.

Stafford County: Zenith—Derby's McNiekle 1, se nw se 1-24s-11w, Viola 3733 ft, pay 3762-3766 ft, 500 gals acid, 989 bbls oil, 52 wtr, 3766 ft.

Stafford County: Stafford—Cities Service's Beyers 2, cs½ sw se 10-24s-12w, Viola 3849 ft, abnd 3871 ft.

Stafford County: Leesburgh—Continental et al's Russell 2, se nw ne 13-25s-13w, Arb 3000 bbls, 4121 ft.

Continental and Cities Service's Russell 2, se ne nw 13-25s-13w, Arb 4114, swab 346 bbls, 4125 ft.

Sumner County: North Vernon—Sinclair Prairie's Herrick 6, sw se ne 15-35s-2e, Miss 3437 ft, shot 60 qts, pump 261 bbls, 3440 ft.

KANSAS OLD WELLS DEEPENED

Russell County: Hall-Gurney—R. B. Snyder's Shaffer 1, cne ne 3-15s-13w, otd 2998 ft, Lansing 2968 ft, pb 3028 ft, pump 50 bbls oil, 8 wtr, 3068 ft.

Russell County: Trapp—Cities Service's Title D-6, cn½ s½ ne 14-15s-14w, otd 3349, Arb 3344 ft, 2000 gals acid, 713 bbls, 3348 ft.

KANSAS WILDCAT COMPLETIONS

Barber County: Failure—H. M. Williams et al's Clay 1, c se se 29-30s-13w, Anhy 585 ft, Topeka 3098 ft, Lansing 3990 ft, Congl 4460 ft, Miss 4480 ft, Base Miss 4509 ft, Viola 4595 ft, Simpson shale 4707 ft, Arb 4804 ft, abnd 4881 ft.

Barton County: Failure—Lauck & Moncrief's Flicker 1, ne se sw 14-17s-12w, Anhy 725 ft, Lansing 3065 ft, Congl 3328 ft, Arb 3341 ft, abnd 3383 ft.

Champlin's Parsons 1, c n½ ne nw 13-17s-13w, Lansing 3140 ft, Arb 3393-3413 ft, abnd 3413 ft.

Butler County: Failure—W. N. Bartlett and Adair & North's Wilhite 1, sw ne nw 21-27s-7e, Topeka 1040-1435 ft, Lansing 1710 ft, Kansas City 2030 ft, Ft. Scott 2420 ft, B'ville 2640 ft, Miss 2719 ft, hfw 2887-95 ft, Simpson dol 3117 ft, Simpson sd 3133-56, Arb 3156 ft, abnd 3166 ft.

Greenwood County: Failure—Dunne's Crawford 1-A, se nw se 8-28s-12e, Kansas City 990 ft, abnd 1017 ft.

Jefferson County: Failure—Sifers et al's Leonhard 1, c se sw 9-10s-19e, Oread 245 ft, B. Hertha 890 ft, McLouth 1610 ft, Miss 1670 ft, abnd 1709 ft.

Marion County: Failure—Rex & Morris' Silhan 1, ne sw nw 21-18s-4e, Lansing 1860 ft, Miss 2403 ft, abnd 2485 ft.

Norton County: Failure—Cities Service's Harrison 1, sw sw ne 18-5s-21w, Anhy 1750 ft, Topeka 3131 ft, Lansing 3313 ft, Syd lime 3571 ft, LaMotte 3585 ft, granite wash 3589 ft, granite 3597-99 ft, abnd 3599 ft.

Phillips County: Failure—Sniclair Prairie's F. Cummings 1, sw nw nw 2-3s-20w, Anhy 1807 ft, Topeka 3180 ft, Lansing 3417 ft, Arb 3744 ft, LaMotte 3942 ft, granite 3965-68 ft, abnd 3968 ft.

Pratt County: Failure—Herndon Drlg.'s Shearer 1, sw sw sw 17-29s-12w, Topeka 3310 ft, Lansing 3875 ft, Miss 4322 ft, Kinderhook 4414 ft, Viola 4486 ft, Asphalt 4494-4509 ft, Simpson 4605 ft, Arb 4698 ft, abnd 4733 ft.

Reno County: Failure—Lion Oil Refg.'s Bughy 1, c w½ sw ne 13-24s-9w, Topeka 2760 ft, Lansing 3274 ft, Miss 3870 ft, Viola 4090 ft, Simpson 4150 ft, Arb 4202 ft, abnd 4277 ft.

Russell County: New Field—A. H. Witt's Fee 1, sw sw ne 3-14s-14w, Anhy 822 ft, Topeka 2685 ft, B. Topeka 2926 ft, Lansing 2976 ft, pay 3000-09 ft, acid 3000 gals, swab 18 bbls hr, 3011 ft.

KANSAS WILDCAT STARTS

Edwards County—Herndon Drlg.'s B. J. Long 1, nw ne se 27-26s-16w, lcn.

Ellsworth County—Pryor & Lockhart's Kraus 1-A, c e½ se sw 17-14s-10w, lcn.

Cities Service's Fuller 1, sw nw ne 25-17s-8w, mim.

Kiowa County—Herndon Drlg.'s Dowell 1, nw nw ne 23-28s-16w, rig.

Leavenworth County—McLaughlin's S. A. Miller 2, nw ne se 32-8s-20e, sp.

McPherson County—Westgate-Greenland Oil's W. Crowther 1, c s½ nw nw 26-17s-1w, lcn.

Pratt County—Black-Marshall Oil et al's Baumon 1, sw sw ne 8-26s-11w, lcn.

Russell County—N. Appleman's Worley 1, c w½ se ne 4-11s-15w, Anhy 937 ft, dr 1000 ft.

Stafford County—S. A. Murphy et al's Central Life 1, c w½ sw ne 25-21s-11w, lcn.

NEBRASKA WILDCAT COMPLETION

Richardson County: Failure—Richco Oil's Diswell 1, sw nw ne 31-2n-15e, Syl 3293 ft, Viola 3352 ft, abnd 3582 ft.

Oklahoma

Second Pay Zone at Liberty, Noble County

Second pay zone for Liberty. New field in prospect for Pottawatomie; East Watchorn has two more producers.

Noble County: Sunray Oil Co. proved a second zone at Liberty, until now a one-well Wilcox-sand pool, at Schultz 1, C NW SE 9-22-2e, when the well flowed 90 barrels of oil and 105 barrels of water in 90 min, from Perry sand at 2600-2610 ft, after pluging back from from dry Wilcox at 4532 ft. Test was incomplete as result of bridging, now being cleaned up.

Pottawatomie County: J. E. Crosbie and Atlantic Refining Co.'s Turner 1, NE NW SW 1-9n-4e, near King pool, is testing at 3841-52 ft in Earlsboro. Initial test showed high water ratio.

Pawnee County: Two new wells are being completed in Wilcox sand at East Watchorn, both being offsets to the discovery well. Alamo Oil Co.'s Wentz 1, SW SE NE 26-23n-3e, flowed 75 barrels hourly through tubing from 3922 ft, and Deroin 2, SW SW NW 25-23-3e, is flowing 60 barrels hourly from 3916 ft.

OKLAHOMA FIELD COMPLETIONS

Caddo County: Cement—Little Nick Oil Co.'s Regney 3, ne ne se 12-5n-9w, Wade 3958 ft, pump 185 bbls, 4072 ft.

Creek County: Cushing—J. E. Crosbie's Dailey 2, se se nw¼ 12-18n-7e, Skinner 2638 ft, shot 80 qts, flow 110 bbls, 2669 ft.

Kiowa County: Hobart—Shell's Ratcliff 2, sw se ne¼ 19-7n-17w, lime 1187, pay 1191-98 ft, flow 532 bbls, csg, 1198 ft.

Marshall County: Isom Springs—Gill & Morris' Adams 1, se nw se 31-7s-6e, sand 492 ft, pump 20 bbls oil, 3 wtr, 500 ft.

Noble County: Liberty—Crosbie's Wilkinson 1, nw ne ne 16-22n-2e, 2nd Wilcox 4544 ft, abnd 4552 ft.

Danciger's Inselman 1, sw ne ne ne 5-20n-2w, Wilcox 5384 ft, flow 912 bbls thru tubing, 4 mil gas, 5389 ft.

Noble County: Tonkawa—Ingling & Parker's Blubaugh 2, cse ne 1-24n-1w, Layton 3230 ft, abnd 3318 ft.

Okfuskee County: Weleetka—Bryant & Moffett's Dean 1, cne ne 22-10n-11e, Gilcrease 2394 ft, 2,500,000 gas, 2398 ft.

Okfuskee County: Morgan—H. C. Cook's Morton 1-A, ne nw nw 4-12n-11e, Dutcher 2646 ft, hole full wtr, abnd 2662 ft.

Okmulgee County: Simmons Black—J. J. Deaner's McGee 3, nw sw ne 17-14n-11e, Dutcher 2370-2500, abnd 2500 ft.

Pawnee County: East Watchorn—Alma Oil Co.'s Oldham 1, sw sw sw 26-23n-3e, Wilcox 3878 ft, flow 500 bbls, ⅝-in, 3900 ft.

Alma Oil Co.'s Swallow 1, sw ne ne 26-23n-3e, Wilcox 3895 ft, flow 900 bbls, ⅝-in, 3927 ft.

Pawnee County: Garr—T. E. Berry's Fee 1, ne se se 12-19n-4e, Misener 3797 ft, flow 338 bbls, tubing, 3825 ft.

Seminole County: Bowlegs—Burns' Rogers 1, cse ne 19-8n-7e, 2nd Wilcox 4268 ft, abnd 4276 ft.

Tulsa County: Jenks—A. L. Walter's Anderson 8, cs½ n½ 4-18n-13e, Perryman 1035 ft, pump 5 bbls, 1067 ft.

OKLAHOMA OLD WELLS DEEPENED

Noble County: North Lucien—Sinclair Prairie's Guthrie 1, cn½ s½ 31-21n-2w, otd 5413 ft, Wilcox 3370 ft, shot 5 qts, abnd 5490 ft.

Sunray Oil Co.'s Guthrie 2, sw ne sw 31-21n-2w, otd 5462 ft, Wilcox 5404 ft, pump 70 bbls, 5486 ft.

OKLAHOMA WILDCAT COMPLETIONS

Murray County: Failure—Rodgers Bros.' Vanderslice 1, cnw nw se 25-2n-2e, so and g in sand 1495-1511 ft, temp abnd 1558 ft.

Pawnee County: Failures—Lastecas' Willard 1, sw sw nw 15-20n-5e, Lay 2632 ft, Foraker 250 ft, Paw 600 ft, Elgin 670 ft, Peru 2895 ft, Osw 2990 ft, Red 3362 ft, so B'ville 3433-83 ft, abnd 3649 ft.

McGride Inc.'s Robedeaux 1, se sw sw 30-23n-3e, Dewey 2315 ft, Lay 2733-2807 ft, Osw 3325 ft, Miss 3845 ft, Wood 4118 ft, Misener 4148 ft, Dense 4150 ft, Dolo 4152 ft, abnd 4249 ft.

Oklahoma County: New Field—Denver P&R's Randolph 1, sw se ne 30-14n-3w, Carmi 4050 ft, Oread 4260 ft, Tonk sd 4370 ft, Cob 5345 ft, Osw 6005 ft, Base Penn and Syl 6375 ft, Viola 6414 ft, Dense 6450 ft, Dol 6494 ft, 2nd Wx 6659 ft, cored 6660-64 ft, Ran Schlum 6640 ft, shot 80 qts 6645-69 ft, comp 6669 ft.

OKLAHOMA WILDCAT STARTS

Kay County—Bogan's Vansellous 1, c sw sw 27-25n-1e, c&p.

Lincoln County—T. N. Berry & Johnson O&R's School Land 1, ne sw sw 16-13n-5e, sp.

Pottawatomie County—E. J. Kubat et al's Sanders 1, c ne ne 33-11n-1e, c&p.

New Mexico

NEW MEXICO FIELD COMPLETIONS

Eddy County—Continental's State 1-36, c se nw 36-19s-30e, flow 252 bbls, 2-in natural, sand 3018-30 ft.

Herbert Aid et al's State-Flynn 1, nw nw ne 28-17s-28e, elev 3680 ft, top salt 450 ft, abnd 910 ft.

Herbert Aid et al's State-Flynn 3, 2260 ft from s and 1650 ft from e 25-17s-28e, abnd 933 ft.

A. H. Hover et al's State 1-B, nw ne se 30-17s-28e, abnd 563 ft.

A. H. Hover et al's State 2-B, nw nw se 30-17s-28e, abnd 553 ft.

NEW MEXICO WILDCAT COMPLETIONS

Chaves County: Failure—H. W. Martin & Helms' Stephens 1, c nw ne 22-15s-29e, elev 3881 ft, abnd 3855 ft.

Eddy County: Failure—Culbertson & Irwin's Ingber 1, c ne ne 23-19s-30e, elev 3269 ft, salt 456-1505 ft, abnd sul w 2065-77 ft.

Lea County: Failures—N. G. Penrose et al's Hinton (Rogers) 1, c ne sw 12-22s-37e, abnd 3942 ft.

Penrose and American Dr. Corp.'s State 1, c se se 22-16s-36e, elev 3883 ft, top lime 4840 ft, abnd 5501 ft.

West Texas

Crane Ordovician Test Logs Show in Simpson

Ordovician prospect in Crane County logs show in Simpson, although abnormally low on structure, and Clear Fork is objective of wildcat in northeast part of county. Big well on Gulf-McElroy leasehold. Shows in Andrews County deep test from thin zones.

Crane County: Magnolia's Glenn 1, between Abell and Sand Hills fields, coring 6140 ft after yielding oil stain and gas odor from sand in McKee, upper Simpson producing zone, topped at 6125 ft, elevation 2436 ft. Occupies low structural position when correlated with either of nearby Ordovician fields.

McElroy Field: Gulf's Crier-McElroy 57, SW SE Section 198, Upton County, rated 4112 bbls, gas/oil ratio 978-1, after 840-quart nitro shot at 2675-2862 ft.

Andrews County: Atlantic et al's University-Texu 1-A, 9 miles northwest of West Andrews pool, drilling dry lime 9350 ft with nominal show oil 9300-03 ft. This wildcat has encountered considerable Pennsylvanian section. Phillips' University-Andrews 3, third Ellenburger producer for Embar pool, flowed 409 bbls in 6 hours through open tubing then 395 bbls through ½-in choke in 9 hours for completion at 7870-7901 ft.

Gaines County: The Texas Co.'s Robertson 1, Clear Fork failure on the Kirk prospect, plugged back from 7686 to 6505 ft, 5½-in 6498 ft, preparatory to perforating opposite promising oil saturation 6457-6515 ft.

Slaughter Field: Minimum of 5 rigs are to be operated continually by two groups of independents in developing leases on the Mallet ranch along the north rim of production. Their initial efforts will be directed at 30 producing offsets. Jerry Hawkins et al, who acquired lease on 51 labors in Leagues 46, 47 and 48, has placed 3 contract-rigs in service with a fourth moving in. T. F. Morrow et al have their minimum of two rigs in operation on their 2500-acre lease, embracing the east 15 labors of League 48, Edwards County School Lands.

WEST TEXAS FIELD COMPLETIONS

Andrews County: West Fuhrman—Siemoneit Dr. Co.'s University-Texaco 1, c se ne sec 10, blk 10, pump 201 bbls 32-gr, shot 570 qts 4365-4580 ft.

Andrews County: Emma—Sinclair Prairie's Cowden 16, 990 ft from s and 1677 ft from e lines T&P 1, blk 44, T-1-N, flow 1144 bbls, 2½-in, acid 3000 gals 4170-4260 ft.

Crockett County: World-Powell—M. & M. Prod. Co.'s Powell 13-B, 1760 ft from n and 467 ft from w EL 62, blk BB, pump 168 bbls, 15% water, acid 600 gals 2629-37 ft.

Ector County: North Cowden—Sun's Holt 1-F, 2085 ft from e and 555 ft from s lines T&P 9, blk 43, T-1-N, flow 358 bbls oil, 16 water, ½-in, shot 540 qts 4480-4772 ft.

Gaines County: Seminole—Mabee O&G Co.'s Austin 2, c sw nw WT 190, blk G, flow 434 bbls natural, ½-in, 5135-5235 ft.

Gaines County: Wasson—Continental-Amon Carter's Langdon 16-44, c se se PSL 44, blk AX, flow 1005 bbls, 2-in, acid 10,000 gals 4850-5010 ft.

Hockley County: Slaughter—DeKalb Agricultural Assn.'s Alexander 7, 882 ft from w and 554 ft from n lines lse, PSL 7, blk X, flow 525 bbls, 2-in, acid 10,000 gals 5008-38 ft, td 5049 ft.

DeKalb's Alexander 8, 1874 ft from n and 882 ft from w lines lse, PSL 7, blk X, flow 312 bbls, ¾-in, acid 9000 gals 5015-38 ft.

Honolulu's Frazier 21, 2083 ft from s and 1936 ft from w lines PSL 10, blk X, flow 1591 bbls cas, acid 10,000 gals 4925-4995 ft.

Texas Co.'s Lucas 2, sec of n-322-ac lse, PSL 7, blk AX, flow 1010 bbls, 2-in, acid 3000 gals 4995-5031 ft.

Scurry County: Sharon—Ordovician Oil Co.'s Bishop 1, se sw se H&TC 162, blk 97, elev 2228 ft, abnd 3135 ft.

Upton County: Gulf-McElroy—Gulf's Crier-McElroy 57, 934 ft from s and 2253 ft from e lines sec 198, blk F, flow 4112 bbls 31.8-gr open, shot 840 qts 2675-2862 ft, td 2872 ft.

Gulf's McElroy 272, 1707 ft from e and 2253 ft from n lines sec 195, blk F, flow 839 bbls, 2-in, shot 705 qts 2835-2996 ft, td 3011 ft.

Ward County—Texas Co.'s University 4-C, 1951 ft from s and 576 ft from e lines sec 5, blk 16, flow 306 bbls, 2-in, shot 160 qts 2490-2545 ft.

Yoakum County: Wasson—American Liberty and Atlantic's Knight-Texaco 10, c nw ne sec 773, flow 354 bbls oil, 15 bs&w, 2-in, acid 10,000 gals 4976-5282 ft.

American Liberty and Atlantic's Elliott-Texaco 7, c ne ne sec 769, flow 328 bbls, 2-in, acid 10,000 gals 5077-5182 ft.

WEST TEXAS OLD WELLS DEEPENED

Crane County: Gulf-McElroy—Gulf's McElroy 44, 1442 ft from n and 2970 ft from w lines sec 200, blk F, otd 2959 ft, pump 453 bbls, shot 1110 qts 2728-2965 ft, td 2975 ft.

Reagan County: Big Lake—Big Lake Oil Co.'s University 20-C, 1243 ft from s and 466 ft from w lines sw sec 24, blk 9, otd 2975 ft, elev 2674 ft, Crinoidal 8395 ft, Ellenburger 8535 ft, abnd 9385 ft.

WEST TEXAS WILDCAT COMPLETIONS

Crockett County: Failure—Grapeland Oil Co.'s Couch-Humble 1, c nw nw HE&WT 33, blk GG, abnd 2407 ft.

Pecos County: Failure—L. C. McKean et al's Nutt-Philco 1, c se ne T&StL 16, blk 125, elev 2883 ft, abnd 2371 ft.

WEST TEXAS WILDCAT START

Howard County—Cosden Pet. Corp.'s Cole 1, c se se H&TC 14, blk 26, lcn.

WEST CENTRAL TEXAS FIELD COMPLETIONS

Coleman County—Empire Southern Gas Co.-R. M. Coleman's Kingsberry 1, near c se of Wharton CSL sur, leag 496, 420,000 gas, acid 1000 gals 2205-65 ft.

Anderson-Prichard Oil Corp.'s Mathews 2, 330 ft from n and 920 ft from w lines blk 5, H. Kegans sur, abnd 3908 ft.

Shackelford County—Roeser-Pendleton-Continental's Cook 16-A-117, ET 117, pump 54 bbls natural 1710-15 ft, td 1720 ft.

WEST CENTRAL TEXAS WILDCAT COMPLETIONS

Brown County: Failure—Central Texas Gas Co.'s Clements 1, 800 ft from nw and 400 ft from sw lines of M. G. Anderson sur 2, abnd 1944 ft.

Jones County: Failure—Butler-Horne Dr. Co.'s Stephenson 1, 1309 ft from s and 330 ft from e lines blk 4, John Winters sur 138, abnd 2282 ft.

WEST CENTRAL TEXAS WILDCAT STARTS

Callahan County—E. M. Thomason et al's W. M. Wright 1, 2470 ft n and 4200 ft e of m/s/swc Jesse Dyson sur A-751, 1½ mi ne Cross Plains, sp 3750-ft test.

Stephens County—Cosden Pet. Corp.'s S. E. Burgess 1, 467 ft out nec SP 4, blk 1, lcn 4300-ft test.

North Texas

Young County Bend Prospect Testing Show

Wildcat gasser in Young County completed, and Bend prospect in west portion county testing oil zone. Joy pool extended northeast by natural flowing well. Montague County wildcat testing promising oil show in Viola; three prolific wells completed as offsets to Forestburg pool's discovery, involving record depth producers for district.

Young County: Standard Oil Company of Texas and Hanlon-Buchanan, Inc.'s Daws 1, 11 miles west by south of New Castle and ¾-mile south of a 4920-ft failure that indicated production possibilities for area, cemented pipe on top of Bend at 3846 ft, 27 ft high, after logging broken oil saturation to 3860 ft. Partnership's Holbert 1, mile northeast of the failure, drilling 3200 ft. Panhandle Refining Co.'s Brundidge 1, J. T. Townsend Survey, opened new gas area in southwest portion county, rated 7,000,000 ft gas initial, acidized 3380-3400 ft in Bend, topped 3382 ft, plugged back from 3550 ft.

Clay County: Shell's Brock 1, northeast outpost for Joy pool, flowed 31

bbls hourly natural through open tubing on 3-hr gauge from Mississippi at 5949-6021 ft, making sixth producer. Roy Lee, Trustee's Watson 1-A, ¼ mile east of Watson pool's Bend discovery, plugging back after testing water with small oil show following acid treatment of Ellenburger at 6014-52 ft; failed to indicate commercial production in Bend, topped 5208 ft, 6 ft low to discovery, which is credited with averaging 40 bbls daily. The two-well Spring pool is registering more disappointments, as Continental's Spring 4, southeast offset to discovery, was drilling dry lime 5750 ft, having failed to produce after acidizing Bend at 5561-80 ft, and Texas Co.'s Stine 1 was drilling at 5618 ft after showing for small producer following acid at 5558-5604 ft.

Montague County: Three indirect offsets to the Forestburg pool's Marble Falls discovery were placed on production by Sinclair Prairie, giving the company a base allowable of 640 bbls of 39-41-gr oil daily that is dependent upon tank trucks for an outlet until OPC approves a projected 16-mile 4-inch line. The company's Jones 3, northwest offset to discovery, flowed 183.6 bbls of oil through open tubing on 3-hr gauge after acidizing broken pay at 7121-7247 ft, and Jones 4 responded to 6000-gallon acid treatment at 7100-7220 ft with flow 167.4 bbls in 3 hours through open tubing. Jones 2, 1380 ft southeast of discovery, flowed 150 bbls natural in 3½ hrs while running tubing from pay at 7051-7132 ft, and will be acidized.

Continental's Hildreth 1, 1¾ miles northeast of Gant-Turner pool's Bend producer, cementing liner below 6549 ft to try for completion at 7157-7201 ft, where tester yielded 100 ft of oil and 120 ft of oil-cut mud with light gas blow in Simpson, topped at 7170 ft. Company's Menefee-Hardy 1, 1⅛ miles southwest of its two Bend wells in Stoneburg pool, tested dry in Bend at 6058-6130 ft and in Viola 6607-97 ft.

Wise County: Stanolind's Menasco 1, ¾ mile northeast of a 7154-ft failure that showed production possibilities, was drilling dry lime at 5590 ft in Bend, topped at 5575 ft, 37 ft low.

NORTH TEXAS FIELD COMPLETIONS

Archer County—W. E. Production Co.'s Ebnother-Shell 2, blk 102, Harris subdiv, pump 30 bbls, plus 25 bbls water, sand 1291-1302 ft.

W. E. Prod. Co.'s Ebnother-Shell 3, 1200 ft from n and 990 ft from e blk 102, pump 221 bbls, 1274-80 ft.

Jack County—Standard of Texas-Hanlon-Buchanan's Jackson 1, swc w½ nw S.P. 1, jkd 610 ft.

Montague County: Forestburg — Sinclair Prairie's Jones 3, 415 ft from sw and 350 ft from se lines 42½-ac unit, M. R. Box sur, 800 ft nw disc, flow 1464 bbls 39.6-gr, 2-in, acid 6000 gals Marble Falls 7121-7247 ft.

Throckmorton County—Coleman & Freeland's McKeichan 1, 1880 ft from s and 330 ft from w sec 4, Comanche Indian Reserve, abnd 734 ft.

Wichita County: K-M-A Ellenberger—Deep Oil Dev. Co.'s Kemp 1-E, 758 ft from n and 467 ft from e lines lot 5, blk 1, KWVFL, flow 116 bbls, 2-in, acid 4000 gals, 4252-4315 ft.

E. E. Oil Co.'s Mangold 29-E, 613 ft from n and 753 ft from w of s½ blk 34, P. Castleman sur, pump 123 bbls oil, 112 water, acid 2000 gals 4331-62 ft.

Lewis Prod. Co.-Selby O&G Co.'s Wichita Nat'l Bank 11-E, 546 ft from w and 6049 ft from s of W. H. Spillers sur, abnd 4350 ft.

Texas Co.'s Thom 13-E, 660 ft from w and 510 ft from n lines lse, W. H. Spillers sur, flow 1066 bbls 40/64-in, acid 3000 gals, 4355-63 ft.

Young County—Hanlon & Buchanan's Street 1, 300 ft from ne and sw lines John Conner Sur A-57, abnd 2671 ft.

Mid-Union Drl. Co.'s Griffin 1, 330 ft from swc of P. Tackett sur A-1255, top Smithwick 3304 ft, Bend 3321 ft, 7,500,000 gas, acid 2000 gals perf 3320-40 ft, td 3423 ft.

NORTH TEXAS WILDCAT COMPLETIONS

Archer County: Failure—Jack Story et al's Abercrombie 1, 1070 ft from e and 2190 ft from n lines blk 1, Hooper-Wade sur A-727, abnd 1331 ft.

Clay County: Failure—Geo. Golden & Norwood's Myers 1, 330 ft from sw and 990 ft from nw lines n½ of s-100-ac blk 49, Bacon subdiv, abnd 1170 ft.

Montague County: Failure—Jerry Hawkins et al's Lowrie 1, 1400 ft from n and 660 ft from w lines TE&L 2824, Palo Pinto 2590 ft, Bend 6185 ft, Barnett shale 6510 ft, Simpson 6800 ft, Ellenburger 7284 ft, abnd 7384 ft.

Young County: Burns-Ragland Pool New Pay—L. T. Burns et al's L. Williams 1, 467 ft out nwc e½ TE&L 257, elev 1181 ft, Bend 3996 ft, Mississippi 4882 ft, flow 992 bbls, ⅛-in, acid 2000 gals, Mississippi perf 4882-4910 ft, td 4984 ft.

NORTH TEXAS WILDCAT STARTS

Archer County—Seaberry & Duncan's Sam Moss 1, 330 ft out nec 2479, mim.

White & Duncan's R. C. Kinder 1, 2310 ft n and 990 ft e of sec of M. Cartwright sur A-60, but in Clark-Plub sec 96, blk 4, 307-ac lse, lcn.

Cooke County—T. F. Johnson et al's J. J. Welch 1, 660 ft out nwc of M. W. Ross sur, lcn.

Wilbarger County—W. T. Waggoner Estate's Fee 1-KK, c nw nw H&TC 10, blk 14, lcn 5500-ft test.

TEXAS PANHANDLE FIELD COMPLETIONS

Carson County—Cities Service's Burnett 48-A, I&GN 10, blk 4, 23 mcf gas, 310 lbs rock pressure, acid 10,000 gals 2675-2817 ft, td 2844 ft.

Gray County—Phillips' Fries 1, se se nw H&GN 217, blk B-2, elev 3305 ft, 4 mcf gas, 403 lbs rp, shot 200 qts 2815-2913 ft, td 2960 ft.

Phillips' A. C. Husted 1, c H&GN 125, blk B-2, 10 mcf gas, 340 lbs rp, acid 5000 gals 2650-2775 ft, td 2807 ft.

Phillips' Read 1, c H&GN 154, blk B-2, 16½ mcf gas, 342 lbs rp, acid 5000 gals 2690-2828 ft, td 2885 ft.

Phillips' Stephens-Eller (Dorothy) 1, se se nw H&GN 205, blk B-2, 7,300,000 gas, 398 lbs rp, acid 5250 gals and shot 120 qts 2775-2835 ft, td 2865 ft.

Brown County Deep Pool Has Shallow Pumper

Brown County deep pool yields shallow pumper. Ellenburger production due in Corbett pool, Stephens County. Shackelford County has Ordovician failure.

Brown County: Guyle Reynolds et al's Green 1, C SW SW BBB&C 26 and west of 2900-ft oil and gas production in Crownover pool, established a new horizon in pumping 22 bbls of oil, 10 percent water, from sand at 1003-19 ft.

Stephens County: Fleming Oil Co.'s Corbett 4, SP 2, Blk 3, Corbett pool, rated at 30- to 50-bbl pumper from dolomite saturation at 4545-55 ft in Ellenburger, topped at 4467 ft. Production in area heretofore confined to Bend and Marble Falls.

Failures: Roark et al's Green 1, BOA 1, Shackelford County, tested water in Ellenburger at 4271-4356 ft. In Nolan County, Texas Harvey Oil Co.'s Tipton 1, near depleted 5100-ft wildcat producer, apparently missed the oil sand and was awaiting orders at 5230 ft.

Special Texas Order to Reduce Gas Volume

Orders issued by the Texas Railroad Commission last week will reduce materially the gas withdrawals from the North Ward field, Ward County, and the Sun and North Sun fields in Starr County. The volume of oil produced will be the same.

In the Sun and North Ward fields, the commission revised its orders to permit transfer of allowables from high gas/oil ratio wells to wells with normal ratios on the same lease. Thus the total lease allowable remains constant, but the high ratio wells may be closed in.

In its rules for operation in the North Sun field, the commission made a similar provision. This was the first time that such a rule has been incorporated in the general rules for any field at the time they are originally issued.

East Texas

Coke Pool Goes East But South Is Doubtful

Coke pool given east spread, but south outpost doubtful for production. Hunt County yields more failures. Cherokee County deep prospect to perforate.

Wood County: Magnolia's White 1, 2050 ft south of production in Coke pool, is the first doubtful producer, having failed to encounter Paluxy oil sand in coring to 6354 ft, estimated 20 ft above water table, which has been constant in 4 wells purposely drilled through pay. White 1 topped Georgetown at 5172 ft, 42 ft low. Amerada's Faulk 2, east outpost, showed nominal structural dip in logging Paluxy pay zone at 6294-6375 ft, and will complete through perforations. Production trend to north remained favorable when Amerada's Darby 1-A penetrated a 109-ft section of Paluxy, halting at 6357 ft in oil sand. Base allowable production of pool has been cut to 70 barrels daily per well since completion of sixth producer.

Henderson County: Bobby Manziel et al's Levine 2, ¼ mile southeast of recent Woodbine failure that indicated production possibilities for area, was coring dry Woodbine at 4075 ft, elevation 344 ft.

Cherokee County: Humble's Curtis 1, prospective deep strike for the Larissa area, was due to perforate opposite gas and distillate show in Pettit at 10,165-10,185 ft, with production also possible in Rodessa porosity at 9784-9893 ft. Pipe was cemented at 10,426 ft after finding Travis Peak barren at 10,474-10,604 ft. Magnolia's Braly 1, scheduled 9000-ft test for the Mixon prospect, was drilling at 3360 ft; Pecan Chalk 3180 ft, elevation 403 ft, or 32 ft high.

Wildcats: Stanley Thompson et al's Spurlock 1, 2½ miles north of Dixon, became the fourth wildcat failure for Hunt County since the opening of the Wieland (Club Lake) pool last June. Top of water sand in Woodbine called at 2835 ft, and the test was drilling at 2960 ft. The narrow faulted producing area has 4 oil wells, and an equal number of close in failures. Gulf and Stanolind have one test each scheduled.

Harrison County: First National Petroleum Trust Co.'s M. G. Armstrong. 1, Holloway survey, west flank test for the Waskom field, perforated Travis Peak below 5908 obtaining gas flow of 10,000,000 cubic feet per day with slight show of oil on pits. Well is one mile from production. It was drilled to 6500 ft, encountered water sand, and set casing at 6282 ft. It has been shut in pending further tests.

EAST TEXAS FIELD COMPLETIONS

Anderson County: Long Lake—Carter-Gragg Oil Co.'s McGaughey 3-A, 2000 ft from ne and 1000 ft from se lines S. Sanches sur 2-10, flow 83 bbls natural 3/32-in, Woodbine 5303-26 ft.

Navarro County: Corsicana-Powell — D. H. Byrd et al's Fleming 8, 330 ft out nwc 36-ac

lse, John Harris sur, pump 36 bbls oil, 200 water, Woodbine 2887-90 ft.

Wood County: Coke—Jerry Hawkins et al's Clark 1, 660 ft out swc 137-ac lse, Berry Smith sur, elev 547 ft, Georgetown 5140 ft, base Goodland 6281 ft, flow 475 bbls 26.9-gr, natural, ¼-in, Paluxy perf 6325-78 ft, td 6392 ft.

Wood County: Hawkins—R. J. Caraway et al's Burtin-Faulk 1, swc 36-ac lse, J. P. Moseley sur, elev 396 ft, abnd 4840 ft.

Panola County: Carthage—Glassell & Glassell's Frost 2, Gibson survey, 5,000,000 gas daily, ¾-in, perf 5824-5942 ft, acidize 5000 gals, td 6300 ft.

Cass County: Kildare—Phillips' Benefield & Singleton 1, Wanhop survey, flow 208 bbls fluid, 10% water, 11/32-in, perf Gloyd 5997-6012 ft, td 6800 ft, extends field east.

EAST TEXAS WILDCAT COMPLETIONS

Hunt County: Failure—T. W. Lee et al's Johnson 1, 660 ft out nwc 230-ac lse, Amos Smith sur, elev 466 ft, Woodbine 3350 ft, abnd 4137 ft.

Nacogdoches County: Failure—Walden Oil Co.'s Saner 1, 467 ft from s and 470 ft e of sw lines of 160-ac lse, Edgar Pallett sur, jkd and abnd 4379 ft.

EAST TEXAS WILDCAT START

Anderson County—Navarro Oil Co.'s H. B. Miller 1, 660 ft out sw cor Wm. Churchwell sur, 3 mi nw Springfield, lcn.

Bowie County—P. D. Bowlen's Simms 1, on 80-acre lease out of 1120-acre tract, H. G. Williams survey, to go to 9500-ft, in Smackover lime, moving in.

Shelby County—Grady Vaughn's Frost 1, W. M. Waterman survey, moving in, 7000-ft test.

Southwest Texas

Jim Wells Wildcat Indicates New Field

Jim Wells County wildcat indicates new gas and distillate field. Wildcat in Buck Snag area of Colorado reported flowing oil from Cockfield. Wildcats hold interest.

Jim Wells County: Shell has been testing Jones 1, wildcat a half-mile southeast of Premont townsite, which is opening gas and distillate production. First test was made through perforations at 6062-67 ft, flowing 650,000 ft of gas daily with small amount of distillate. Second test was made in same perforations, 16 holes, and produced 2,030,000 ft of gas with considerable distillate in 24 hours through ¼-in choke. Perforations squeezed for further tests.

Colorado County: Shell's Schiurring 1, wildcat in Buck Snag area, I&GN 6, 4 miles southwest of Garwood, is reported flowing oil from Cockfield, although this operation has been held exceptionally "tight." The wildcat was projected to about 7000 ft, and is in the same area as the Garwood field which also produces from Cockfield and a small amount from the Wilcox.

Duval County: Argo Oil Co. has been conducting tests in Carroll 1, outpost in Rios field. The field discovery well produced from the 6300-ft zone. Operators have been testing the 6800-ft level, which showed gas and distillate.

Three miles southeast of Muralla field, Taylor Refining Co. is testing a wildcat between 5300 and 5500 ft. Hole drilled to 5862 ft, and drill-stem test at 5373-80 ft yielded oily mud. A sand section cored at 5520-34 ft carried oil odors.

Lavaca County: Shell is preparing to drill McManus 2, wildcat in Brushy Creek area which recetnly opened gas and distillate production in Wilcox. Location will be 4403 ft northeast of McManus 1 discovery on 1244-acre lease in Alexander Adams survey. Shell completed the discovery in December, 1941, in a sand around 7760 ft, but it was later recompleted in a shallower sand reported topped around 7400 ft.

LOWER TEXAS COAST FIELD COMPLETIONS

Bee County: South Caesar—Atlantic's Cotton 1, 467 ft fr nl and 594 ft fr e and wl's 85-ac lse, Thomas Powell sur, 5½-in 6622 ft, perf 6616-18 ft, 146 bbls 39.2-gr, ⅛-in, td 6622 ft.

Duval County: Seven Sisters—George W. Lyles' Wright 2, 520 ft fr sl and 1610 ft fr wl 164-ac lse GBCNG 226, abnd 2275 ft.

Jackson County: North LaWard—Cities Service's Graves 3, 360 ft fr sl and 2970 ft fr wl 240-ac lse Patrick Scott sur, sand 5208 ft, 5½-in 5672 ft, perf 5624-28 ft, 280 bbls, ¼-in, td 5673 ft.

Jackson County: Maurbro—Cities Service's Pritchett 2, 467 ft fr wl and 1457 ft fr nl 100-ac lse in ne cor 400-ac tr Abraham M. Clare sur, sand 5218 ft, 5½-in 5284 ft, perf 5218-35 ft, 95 bbls, 3/16-in, td 5866 ft.

Humble's Strauss 8, 457 ft fr swl 530-ac tr A. M. Clare sur, sand 5214 ft, 5½-in 5204 ft, flow 194 bbls, ¼-in, td 5223 ft.

Jackson County: West Ranch—Magnolia's West 232, 4000 ft fr nl of 11,582-ac tr, R. Musquez gr, sand 5745 ft, 5½-in 5773 ft, perf 5745-50 ft, 82 bbls 31.2-gr, 3/16-in, td 5773 ft.

Jim Wells County: Wade City—W. R. Quin's Priesmeyer 1, 330 ft fr nl and 467 ft fr el blk 10, George Reynolds sur 6, abnd 4930 ft.

Jim Wells County: Seeligson—Transwestern's Dunlap 16, 790 ft fr sl and 2811 ft fr el 970-ac tr in SKK 179, 6-in 6114 ft, perf 6069-73 ft, 70 bbls, 5/64-in, td 6114 ft.

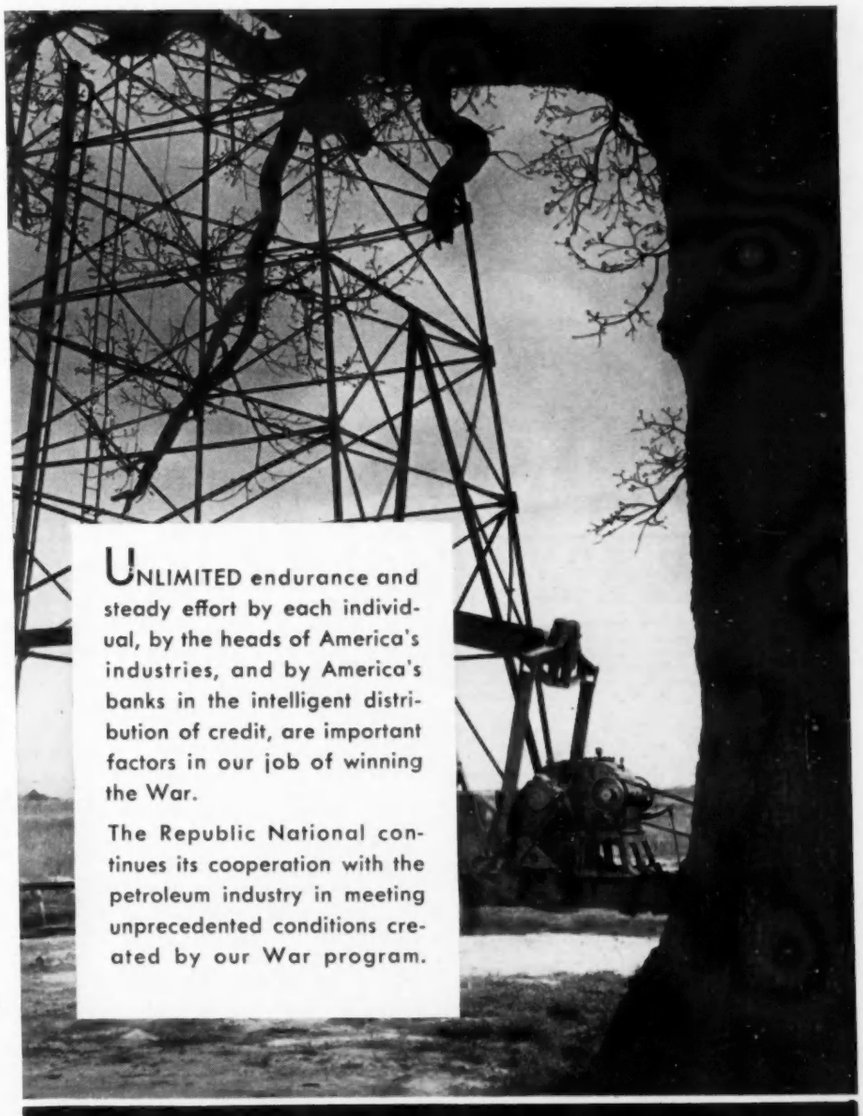
Kleberg County: Seeligson—Humble's King Ranch-Cabeza 2, 1980 ft fr wl and 2478 ft fr sl A. S. King sur 50, 5½-in 6028 ft, flow 153 bbls, ⅛-in, td 6047 ft.

Victoria County: East Placedo—Stanolind's Vandenberge & Hill 14, 730 ft fr sel of 996-ac lse in E. Benavides gr, sand 6843 ft, perf 6868-71 ft, 139 bbls, ⅛-in, td 6965 ft.

LOWER TEXAS COAST WILDCAT COMPLETIONS

Bee County: Failure—Shirley & Scheig's Moore 1, 7 mi sw Beeville, in Sam Allen sur, gas in Frio, abnd 4308 ft.

Jackson County: Failures—Navarro's Koop


UNLIMITED endurance and steady effort by each individual, by the heads of America's industries, and by America's banks in the intelligent distribution of credit, are important factors in our job of winning the War.
The Republic National continues its cooperation with the petroleum industry in meeting unprecedented conditions created by our War program.
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1, 3 mi n Vanderbilt, ne Ramon Musquez 15, abnd 6507 ft.

Rowan & Hope's Wearden 1, 5 mi ne Cordele field, ne se IGN 17, blk 1, abnd 4764 ft.

Jim Wells County: Failure—Texas Gulf's Hewitt 1, 660 ft fr n&wl's of se sec 44, abnd 6518 ft.

Lee County: Failure—W. O. Furlow & D. C. Trash's Peebles 1, 100 ft fr n&wl's of 287-ac lse in J. F. Johnston Lge, abnd 2100 ft.

LOWER TEXAS COAST WILDCAT STARTS

Jackson County—John G. Mayo and J. A. Gray's Cound 1, 667 ft fr nw and se lines of O. E. Cound tr in William Whitaker sur 79, lcn 4750-ft test.

Gulfboard's Mercer 1, 660 ft fr s&el's of blk 1, w edge George Sutherland sur, lcn 6500-ft test.

Milam County—Roseber & Blankenstein's Garner 1, 360 ft fr sl and 623 ft fr el S. C. Robertson sur, 5 mi n Rockdale, lcn.

SOUTHWEST TEXAS FIELD COMPLETIONS

Starr County: Rincon—Continental's Slick 86, 990 ft fr nl CCSDRGNG 222, abnd 4085 ft.

Starr County: North Sun—Sun's La Garze 7, 1500 ft fr e'ly wl and abt 3100 ft fr n'ly nl of 1192-ac lse share 11, La Sal Colorado gr, 5½-in 4574 ft, perf 4530-33 ft, 159 bbls, 9/64-in, td 4586 ft.

SOUTHWEST TEXAS WILDCAT COMPLETIONS

Duval County: Failure—Mudge Oil Co.'s Haigst Ranch 1, 670 ft fr wl and 660 ft fr sl L. G. Brown sur 4, 2 mi ne Eagle Hill field, abnd 2941 ft.

Starr County: Discovery—Fidelity Oil & Royalty Co.'s Sugarland 1, North Boyle discovery, 660 ft fr nl and 760 ft fr e&wl's 100-ac lse in porcions 91-92, 4½-in 4025 ft, perf 3970-80 ft, 77 bbls 45.8-gr, tp 460, cp 1200, ⅛-in, td 4200 ft.

Starr County: Failure—Sun's Guerra 1, 4000 ft fr wl and 660 fr sl Caroline Campbell sur, abnd 4603 ft.

Syndicate Oil Co.'s Sanchez 1, 660 ft fr wl and 1540 ft fr nl of porcion 75, abnd 2045 ft.

Webb County: Failure—Texas Co.'s Jones 1, 2½ mi w Moca field, Alfred Pruitt survey 1640, abnd 1784 ft.

SOUTHWEST TEXAS WILDCAT START

Duval County—Yegua Corp.'s Ruiz 1, 3½ mi s Kreis field, 660 ft fr sw and nwl's BSF sur 93 on 301-ac lse, lcn 3600-ft test.

Texas Gulf Coast

Mercy Field Extension Producer Indicated

Montgomery County deep wildcat drills ahead after making one test. Half-mile extension to Mercy field indicated while second production test scheduled in Harris County wildcat.

Montgomery County: Superior is drilling around 13,250 ft in Frost 1, wildcat in A. Hodge survey, northwest of Lake Creek field, after flowing slight amount of gas and salt water on one test. Pipe was perforated at 10,025-40 ft in Wilcox and after failing to produce at this point drilling was resumed. Old total depth was 13,074 ft and 7-in casing was cemented near bottom. This wildcat is 2½ miles from field production.

LaGloria Corp. is drilling Grogan-Cochran Lumber Co. 1, Pinehurst area, around 9100 ft. In Willis area northwest of Conroe, Strake Petroleum is below 6300 ft in Jones 1. Both are Wilcox tests.

San Jacinto County: Atlantic has set production pipe to 8317 ft in Beshell 1, ½ mile southeast extension to Mercy field production. Although details have not been announced, it is reported sufficient sands were cored to make a well and will give a material extension to the Wilcox sand field. Shell is drilling two wells in the field proper, while Fain Drilling Co. is below surface pipe set at 1492 ft in Baldwin 1, wildcat 4 miles west of Mercy field.

Harris County: Considerable interest has been turned on Jack W. Frazier's Wood 2, 9206-ft wildcat in Dyersdale field, although first test at 8340-50 ft yielded salt water. Another set of perforations was made at 8545-55 ft, but water channeled into perforations, and the well was recemented before a test was made in this latter zone. With 5½-in set at 8968 ft, the well is the deepest ever drilled in the field and penetrated some 400 ft in the Cook Mountain formation, although field wells proper produce from Miocene and Frio at 3400 ft and at 4000 ft.

Wildcats: Sun is drilling below surface pipe in Doornbos, wildcat 1 mile northwest of Fig Ridge production, Chambers County. Surface casing was cemented at 1724 ft. Ohio Oil Co. ran electrical log to 6926 ft in Kaechely 1, wildcat 9 miles southwest of Sealy in Vital Flores grant, Austin County, and is now drilling ahead. This is a Wilcox sand test.

TEXAS GULF COAST FIELD COMPLETIONS

Galveston County: Alta Loma—Stanolind's Moore 1, 660 ft fr nw and nel 400-ac tract, Pallas Love 27, 7-in 9156 ft, abnd 10,300 ft.

Jefferson County: Lovell Lake—Humble's Jefferson Land 26, 467 ft fr n and 730 ft fr el William Carr sur, sand 7718 ft, 5½-in 7707 ft, flow 144 bbls, ¼-in, td 7720 ft.

San Jacinto County: Mercy—Shell's Golston 1, 600 ft fr ne and se l of 418-ac tr, K. Holiday sur, 5½-in 8281 ft, flow 155 bbls 37-gr, ½-in, td 8925 ft.

Waller County: Katy—Stanolind's Campbell 1, 1320 ft fr s&el 160-ac lse H&TC 121, 7-in 7312 ft, gas, no gauge, td 7313 ft.

Stanolind's Stoutenborough 1, 660 ft fr e and 2350 ft fr nl of 640-ac lse, J. G. Bennett 102, 7-in 7313 ft, gas, no gauge, td 7313 ft.

Wharton County: Withers—Texas Co.'s Pierce 90, 6985 ft s 62 deg w and 467 ft s 29 deg e of ne cor B lse, HE&WT 441, perf 5325-29 ft, flow 10 bbls, 6/64-in, td 5339 ft.

TEXAS GULF COAST WILDCAT COMPLETIONS

Fort Bend County: Failure—J. K. Dorrance and Wynn Crosby's Blakely 1, 5 mi w Clodine, 86-ac tr, Thomas Habermacher sur, abnd 7250 ft.

Harris County: Failure—General Crude's Bender 1, 1980 ft fr s&wl 1500-ac tr, Thomas W. Marshall sur, abnd 8016 ft.

Matagorda County: Failure—Stanolind's Buckner Orphans Home 1, 4000-ac tr, James Moore sur, 9⅝-in 7156 ft, abnd 11,365 ft.

Tyler County: Failure—Humble's Goolsbee 1, Hillester area, 638-ac tr, BBBC A-131, Wilcox 7464 ft, abnd 10,214 ft.

TEXAS GULF COAST WILDCAT START

Walker County—B. A. Farrell's Frazier & Campbell 1, 390-ac tr, William Mack A-401, lcn 6500-ft test.

Louisiana Gulf Coast

Venice Well Will Attempt To Drill Through Salt

Well in Venice field to attempt to drill through salt. Deep well on Pine Prairie flank starts while Humble abandons deep wildcat in Ascension Parish.

Plaquemines Parish: Tide Water is preparing to resume drilling on Buras Levee District 18, well in Venice field which was temporarily abandoned at 5274 ft when salt was reached. The hole has been conditioned and operators will attempt to drill through the salt rim. It is reported that decision was made to resume drilling after an electrical survey was run and correlation checked. Operators hope to emerge from the salt, thus making the well a wildcat operation since no other nearby test has penetrated far into the salt in this area.

Evangeline Parish: Texas Co. has started work on LeDanoia Land & Stone Co. 3, semi-wildcat on southwest side of Pine Prairie dome, and in Sparta

The OIL WEEKLY'S TRADING POST

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P. O. Box 2608 Houston, Texas

sand area which was recently opened to production by the same operators. Location is 662 feet north, 4 degrees 20 minutes east of the discovery, 2 miles west of regular Cockfield sand production. Nicklos Drilling Co. of Houston has contract. Pine Prairie is the most active field in South Louisiana with 7 rigs either running or preparing to get underway.

Ascension Parish: Humble has abandoned Gautreau 1, wildcat on Duplessis prospect, Section 8-9s-3e. Bottomed at 10,700 ft, operators stopped drilling at 10,589 ft where electrical log was run and sidewall samples were taken, indicating nothing of interest. Drilling was resumed at this point and carried to 10,700 ft where it was quit.

Wildcats: Humble has set surface pipe in Louisiaan Furs 1, wildcat 6 miles west of Pecan Island prospect in Vermilion Parish. Union of California is spudding Louisiana Furs 1 on Fresh Water Bayou prospect, also is in Vermilion Parish.

SOUTH LOUISIANA FIELD COMPLETIONS

Evangeline Parish: Pine Prairie — Pan American's Mansaur 1, 968 ft n & 330 ft e swc 37-3s-1w, 5½-in 8028 ft, perf 7975-85 ft, 75 bbls, ¾-in, td 8263 ft.

Humble's Ortego 1, start nw cor sec 1, go s'ly 330 ft alg wl, thence at ra e'ly 330 ft in 1-4s-1w, 5½-in 8064 ft, flow 9 bbls hr, 5/32-in, tp 1325, 8069 ft.

Lafourche Parish: Delta Farms — California Co.'s Delta Farms 8, begin nw cor sec 6, go s one deg no mins e 2784 ft, thence e 2130 ft in 6-17s-23e, 7-in 9620 ft, perf 9010-52 ft, 229 bbls 34-gr, ¼-in, td 9620 ft.

Lafourche Parish: Raceland — Amerada's Moore 4, start nw cor lot 34, go s 50 deg 36 mins e 5279 ft to nw cor in 34-15s-19e, perf 8930-8955 ft, 253 bbls, 9/64-in, td 10,219 ft.

Lafourche Parish: Valentine—Pan American's Harang 23, 1630 ft s 5 deg w alg wl sec 7 fr nwc, thence 100 ft e at ra in 7-17s-20e, abnd 9336 ft.

Calcasieu Parish: Vinton—Union of California's Gray 2, 2310 ft n & w sec 32-10s-12w, abnd 5900 ft.

Plaquemines Parish: Barataria—California Co.'s State-Mississippi River 3-458, begin nec unit 123, go n 66 deg 15 mins w 466 to lcn, 7-in 7655 ft, perf 7630-42 ft, 195 bbls ⅛-in, tp 1110, gor 492-1, td 7655 ft.

Vermilion Parish: West Gueydan—Pure's Calcasieu National 1, 763 ft w & 464 ft n sec w½ 41-12s-2w, abnd 10,901 ft.

Vermilion Parish: White Lake—Union's Vermilion Parish School Board 4, fr nec sec 16, go 3300 ft s'ly alg el sec, thence 459 ft w'ly at ra in 16-15s-1e, 5½-in 6440 ft, perf 6018-48 ft, 324 bbls, 10/64-in, perf 6427-32 ft, 178 bbls, 10/64-in, dual completion, td 6840 ft.

SOUTH LOUISIANA WILDCAT COMPLETIONS

Evangeline Parish: Failure—Continental & Humble's Pardee 2, 990 ft n, 330 w sec 24-4s-2w, abnd 12,688 ft.

St. Tammany Parish: Failure—J. Elliott Stanga's Goodbee 1, Goodbee prospect, abnd 1616 ft.

SOUTH LOUISIANA WILDCAT STARTS

Avoyelles Parish—Placid Oil Co.'s Hines 1, 660 ft n&e of swc 11-4n-6e, Penrod Drilling Co., cont, lcn 6000-ft test.

Texas Coast Casing Program Revised

Orders issued by the Texas Railroad Commission last week revised the casing program in several Gulf Coast fields, as requested by Humble Oil & Refining Company.

The new regulations provide that "All flowing wells shall be equipped with and produced through tubing of not more than 2½ inches in diameter. Bottom of tubing shall be at a point not higher than 100 feet above the top of the producing sand, or at a point not more than 50 feet above the blank liner."

The following fields are affected: Conroe, Dickinson, Gillock, Hastings, Livingston, Segno, Segno Deep, Silsbee, Tomball, Webster, West Ranch, Hardin, Magnet, Amelia and Anahuac.

North Louisiana

Moorehouse Wildcat Flows Oil on Test

Moorehouse Parish wildcat has promise as field opener. Second well on Catahoula Lake in LaSalle Parish has good pay section. Bossier Parish deep wildcat had show of light oil.

Moorehouse Parish: Union Producing Co.'s Crossett Timber & Development Co. Unit A-1, 1995 ft w and 1986 ft S NEc 6-22n-6e, on production test from 3710-18 ft flowed 64 barrels per day of 47-gravity (light brown) oil on 3/16-in choke, with gas/oil ratio of 10,000 to 1. High ratio led to decision to perforate slightly deeper in hope of lowering gas pressure. Salt water gave trouble on first test of this level but was squeezed off. Show believed to be in Cotton Valley series.

LaSalle Parish: Carter Oil Co.'s Catahoula Lake C-2, C NW SE 6-6n-4e, is preparing to wash in at 4230 ft, after coring a good Wilcox section. It is the second over-water well at Catahoula Lake. Nearby, a wildcat, Carter's Tensas Delta A-2, SE SW 25-6n-4e, in the Muddy Creek area, perforated at 4728-32 ft, and flowed salt water with a slight show of oil and no gas and was squeezed off. Total depth is 5976 ft.

NORTH LOUISIANA COMPLETIONS

Caddo Parish: Shreveport—W. C. Leisk et al's Free State Plantation 1, 2175 ft s and 1270 ft w of c of 19-18n-13w, flow 45 bbls, 43-gr, 20/64-in, cp 750, tp 500, casing set on

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top Pettit lime; pay section from 5558-68 ft, td 5568 ft.

Claiborne Parish: Haynesville—T. L. James Co.'s Wynn 1, 589 ft s and 730 ft w ne cor sw 26-23n-8w, flow 292 bbls 9 hrs, 26/64-in, cp 800, tp 500, perf Pettit lime 5452-70 ft, 5475-80 ft, td 5612 ft.

J. B. White and W. B. Hinton's Hunt 1, c sw ne 17-23n-8w, flow 145 bbls, 8 hrs, ¼-in, perf Pettit lime 5370-85 ft, acidized 2000 gals, td 5456 ft.

Claiborne Parish: Sugar Creek—Carter et al's Stevenson-Kilpatrick 2, 2080 ft s and 1984 ft e nw cor 12-19n-6w, abnd 5990 ft.

Concordia Parish: Lake St. John—California Co.'s Pan American 4, begin at ne cor section 15, thence w 3615.2 ft, thence 487.8 ft to location in 15-9n-10e, flow 123 bbls, 8/64-in, perf Wilcox 3482-3520 ft, td 4620 ft.

NORTH LOUISIANA WILDCAT COMPLETIONS

Bossier Parish: Failure—Continental's Crystal 1, 1650 ft fr n and 990 ft w of se cor 21-21n-11, abnd 5660 ft.

Richland Parish: Failure—Crown Central's McCoy 1, c nw se 29-16n-6e, abnd 4517 ft.

NORTH LOUISIANA WILDCAT STARTS

Caldwell Parish—W. B. White's McDaniels 1, c sw se 10-11n-3e, lcn.

Madison Parish—Continental's G. W. Patterson 1, 5000 ft ne along se line from s corner section 7 on line between sections 6 and 7 in section 7-16n-12e, lcn.

Caddo Parish—Roy L. Fisher's Scott 1, 474 ft s and 1300 ft e nw cor 8-16n-16w, lcn.

LaSalle Parish—Aubrey M. Poynter's Heard 1, c sw se 13-8n-3e, lcn.

Winn Parish—Placid Oil Co.'s Davis 1, c se sw 19-13n-2w, lcn.

Arkansas

Miller County Wildcat Has Show in Smackover

Carter Oil Co.'s L. E. Orr 1, C SE SW 3-16s-28w, Miller County wildcat near Texarkana, topped Smackover lime at 7343 ft. A core from 7346-60 ft included 23 inches of soft semi-oolitic lime with a slight gas odor. Another core from 7360-80 ft included 15 inches of lime with slight odor of gas and distillate taste, and 10 inches of tight lime with slight gas odor; coring below 7380 ft, still in the lime.

ARKANSAS FIELD COMPLETIONS

Columbia County: Dorcheat—Craig, Foster and Monzingo's Jim Keith 1, sw 16-18s-22w, flow 360 bbls 44-gr, ⅛-in, tp 625, perf Cotton Valley sand 7902-7905 ft, td 8000 ft.

Columbia County: Macedonia—Atlantic's Warnock-Brewer 1, c s½ sw 15-18s-21w, flow 129 bbls 63-gr, ¼-in, tp 1300, perf Reynolds member Smackover lime 8850-66 ft, td 8892 ft.

Lafayette County: Midway—Barnsdall Oil Co.'s McClaine 3, c sw nw 13-15s-24w, pb 2886 ft, abnd, td 6512 ft.

Southwood Oil Co.'s Turner 1, c sw se 12-15s-24w, abnd 6528 ft.

ARKANSAS WILDCAT START

Ouachita County: North Central Texas Oil Co.'s Fort Smith Land and Timber Co. (mineral fee) and Carroll Givens (land fee) 1, c nw nw 15-12s-17e, lcn Smackover test.

MISSISSIPPI FIELD COMPLETION

Madison County: Pickens—Phillips' Whitworth 4, 573 ft n, 602 ft w se cor sw nw 4-11n-3e, pump 91 bbls oil, 205 salt water in 14 hrs, td 4900 ft.

MISSISSIPPI WILDCAT COMPLETIONS

Clarke County: Failure—C. L. Higgason et al's Long-Bell 1, 660 ft n and 620 ft e sw cor 10-3n-16e, Wilcox 285 ft, Midway 1800 ft, chalk 2310 ft, Eutaw 3334 ft, abnd 4033 ft.

Forrest County: Failure—Placid's Batson 1, c nw sw 35-1s-3w, abnd 5300 ft.

Wilkinson County: Failure—Bering Oil Co.'s Crosby 1, c sw sw 10-3n-1e, tops Vicksburg 3463 ft, Cockfield 3803 ft, Wilcox 5375 ft, abnd 7503 ft.

MISSISSIPPI WILDCAT STARTS

Clarke County—C. L. Higgason's School Land 1, sw ne 16-3n-16e, dk.

Lincoln County—Freeport Sulphur Co.'s Lee 1, 1127.6 s and 145.3 w ne cor 21-5n-9e, dr.

Simpson County—Gulf's Blalock Unit 1, c ne ne 17-2n-4e, lcn, stratigraphic test, may drill 8500-foot test later.

Jones County—A. H. & C. L. Rowan's Jefcoat 1, c se ne 12-7n-14w, set surface casing.

Claiborne County—Amerada's Arnez 1, begin at common corners of sections 15, 24, and 25, go n 40 deg 21 mins w 1181 ft thence s 49 deg 40 mins w 660 ft to location in 25-11n-3e, dr 750 ft.

Rocky Mountain Area

Wildcat Activity At Ten-Year Peak

Wildcatting scattered through the Rocky Mountain division is reaching a peak heretofore unattained in the past ten years. With a small gas discovery in Montana and despite three important failures, seven tests in unproved areas started this week in addition to the five wildcat operations commenced with the past two-week period.

Gas at Apex: A. A. Oil Co.'s Fey 1, SW SE SE 32-37n-2e, Apex area, near the Canadian border, Montana, gauged 2 million ft of gas at 1500-15 ft (td 1552 ft), under 200-pound rock pressure. Gas is coming from stray sands in Colorado shale where well completed because of caving hole, and it is doubted whether test reached the objective Bow Island sand. Company plans drilling of a second hole to be carried to the Bow Island.

Dupeyer Failure: Texas Co.'s Kingsbury 1, SE SE 8-29n-7w, Dupeyer area, Montana, abandoned in Madison lime at 4208 ft after slight show of oil at 4188 ft, top of Madison. Wildcat is first of several to explore for shoreline sand extension southwest of Cut Bank on 68,000-acre Texas block.

South Dakota Start: Continental Oil Co. released location for State 1, SE SE NW 36-8s-3e, Chisholm structure, Fall River County, South Dakota; will explore Minnelusa formation expected at 3000 ft.

COLORADO COMPLETION

Moffat County: East Hiawatha—Mountain Fuel Supply's Kuykendall 3, ne nw se 22-12n-100w, 325 bbls, Wasatch, td 2492 ft.

MONTANA COMPLETIONS

Big Horn County: Hardin—Big Horn Oil & Gas Development Co.'s 46, ne nw sw 20-1s-33e, .061 ft gas, 105 lbs rp, Frontier 652-666, td 667 ft.

Fallon County: Cedar Creek—Montana Dakota Utilities Co.'s 161, csw 13-5n-60e, 1.4 ft gas, 180 lbs rp, Judith River 605-777 ft.

Montana Dakota's 164, ne sw sw 25-5n-60e, .5 ft gas, 196 lbs rp, Judith River 606-740 ft, td 749 ft.

Glacier County: Cut Bank—Glacier Production's Lookhoff 7, cne sw 33-33n-5w, swab 192 bbls, shot 40 qts Lower Cut Bank 2893-2901 ft, pb 2910 ft, td 2902 ft, elev 3799 ft.

Glacier's Miller 10, cne sw 29-33n-5w, swab 110 bbls, Lower Cut Bank 2950-68 ft, td 2969 ft, elev 3798 ft.

Texas Co.'s Bonnet 6, cnw nw 17-32n-5w, swab 176 bbls, Lower Cut Bank 2938-48 ft, td 2957 ft, elev 3721 ft.

Texas' Rasmussen 1, cne ne 29-35n-6w, Lower Cut Bank carried water slight show oil at 3165-82 ft, abnd 3200 ft, elev 3491 ft.

Wright Hagerty's 195 Tribal 2, se nw sw 18-32n-5w, swab 297 bbls, Lower Cut Bank 2665-93 ft, td 2700 ft, elev 3432 ft.

Phillips County: Bowdoin—Montana Dakota's 692, csw 32-33n-32w, .396 gas, Bowdoin 875-906 ft, Phillips sand 1080-1100 ft, td 1138 ft.

Montana Dakota's 694, csw 28-33n-32w, .310 gas, 250 lbs rp, Bowdoin 840-890 ft, Phillips 1010-1040 and 1095-1125 ft, td 1153 ft.

Montana Dakota's 706, se nw se 2-32n-33e, .606 gas, 270 lbs rp, Bowdoin 735-795 ft, Phillips 925-975 ft, td 998 ft.

Montana Dakota's 707, se nw se 3-32n-33e, .606 gas, 285 lbs rp, Bowdoin 727-770 ft, Phillips 920-955 ft, td 990 ft.

Montana Dakota's 714, se nw se 1-32n-33e, .560 gas, 270 lbs rp, Bowdoin 765-820 ft, Phillips 960-995 ft, td 1028 ft.

Montana Dakota's 695, ne sw sw 29-33n-32e, abnd 1250 ft.

Pondera County: Dupuyer—Texas' Kingsbury 1, cse se 8-29n-7w, Madison at 4188 ft, abnd 4208 ft.

Toole County: Apex—A. A. Oil Co.'s Fey 1, sw se se 32-37n-2e, 2.0 gas, 200 lbs rp, td 1552 ft.

Toole County: Kevin-Sunburst—Big West Oil Co.'s Theil 1, csw nw 32-35n-4w, .5 gas,

Ankle Deep?
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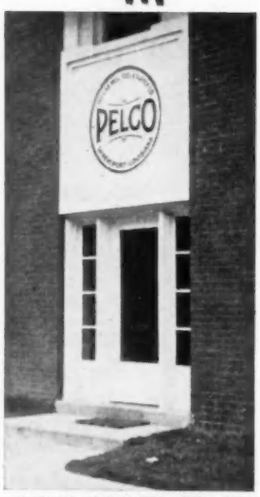
The American people are only ankle deep in this war, yes. But in the sense that water is never more than breast-deep to a duck. There is a war to be won, but only the pee-pul seem to know it. Have you ever met a man outside Washington who has any patience with strikes in war industries? Is it the pee-pul's idea to wait until after November to fix up a tax bill and lower the draft age? Who's lost in the rubber muddle, content with inflation, uncertain about transport planes, futile about sub sinkings and foggy about the Aleutians? The language of the oil industry has always been replete with zestful adjectives. Maybe we should bundle up in asbestos a random few of those we hear these days and send them C.O.D. to the XYZ's on Capitol Hill.



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Upper Cut Bank 2104-40 ft, pb from 2390 ft after acidizing and testing oil show 2323-28 ft in Madison with negative results.

Black Label Oil Co.'s State 12, cel ne se 16-35n-2w, abnd 1835 ft.

Consolidated Gas Co.'s Stillson 1, cne sw 2-32n-2w, .750 gas, 1743 ft.

"56" Petroleum Co.'s Jarrett 14, ne nw nw 29-35n-2w, pump 55 bbls, 1488 ft, elev 3377 ft.

Casper T. Olen's Engemoen 12, ne se nw 14-35n-2w, pump 35 bbls, 1570 ft.

Ramona Oil Co.'s Government 6, nw sw nw 12-35n-3w, pump 25 bbls, 1569 ft.

WYOMING COMPLETIONS

Carbon County: Sherrard — Sinclair Wyoming's Anderson 1, se se se 14-25n-89w, 2.0 gas Frontier, perf 2315-2330 ft, pb 2914 ft from failure in Tensleep, td 4995 ft.

Natrona County: South Cole Creek—General's 7-17-P, 17-34n-76w, so Shannon 4895-4902 ft, abnd 7214 ft.

Park County: Oregon Basin—Ohio's Halleen 3, nw se sw 29-51n-100w, flow 800 bbls, Embar 3253 ft, td 3597 ft.

Ohio's Government 2, nw ne ne 32-51n-100w, pump 450 bbls, 3615 ft.

Platte County: Antelope Gap—General's 34-15-P, sw se nw 15-24n-66w, abnd Pennsylvania, 5342 ft.

Sweetwater County: Baxter Basin—Mountain Fuel's Union Pacific 3, sw nw ne 11-19n-104w, 1.945 gas, 3600 ft.

Michigan

Two 1942 Discoveries Given Boost by Strikes

Gordon Oil Co.'s Myers 1, NE NE SW 16-19n-14w, Lake County, 1320 ft south of the Sauble discovery, flowed 252 bbls of oil in 13 hrs from Traverse lime at 2136 ft to revive the early year prospect. Previously discovery had been offset to north with a failure and on east with a small pumper.

Osceola County: Sun Oil Co.'s Cook 1, N½ NE NE 27-18n-8w, flowed 130 bbls first 16 hrs from Dundee lime at 3757 ft for third producer in pool. Sun, who controls entire area, now drilling eight wells.

Barry County: Sun's Mead 1, SW SW SW 10-3n-9w, wildcat, logged St. Peter sand at 5020 ft, and Knox dolomite at 5031 ft, with oil show cored at 5079-84 ft. Casing set at 4550 ft and equipment will be moved in to swab and cleanout.

Missaukee County: Sun completed Horner 2, S½ SW SW 11-24n-5w, Norwich Township, for an 18-bbl pumper and discovery in Monroe limestone at 4437 ft.

State Lease Sale: The Michigan Department of Conservation will offer 25,000 acres of state-owned land in northern Michigan for lease on September 4. The department now has 400,000 acres under lease with producing acreage returning an average of $40,000 monthly in royalties.

MICHIGAN FIELD COMPLETIONS

Arenac County: Adams — Ervin Major's State 1, c nw nw 31-19n-4e, Monroe lime 1300 ft, swab and flow 73 bbls after acid, td 4254 ft.

Bay County: Kawkawlin — Chapman Oil Co.'s Ruegsegger 3, n½ sw ne 3-14n-4e, Dundee lime, pump 30 bbls natural, swab and flow 516 bbls 47 hrs after acid, td 2935 ft.

Clare County: Headquarters—E. V. Hillard's Pinch 1, n½ ne ne 10-20n-3w, Monroe lime, flow and pump 66 bbls after acid, td 4968 ft.

Lake County: Sauble—Gordon Oil Co.'s Myers 1, ne ne sw 16-19n-14w, Traverse lime, flow 251 bbls 23 hrs, natural, td 2136 ft.

Osceola County: Reed City—Ohio's Clark A-1, n½ nw sw 4-17n-10w, Monroe lime, flow 168 bbls after acid, td 3547 ft.

MICHIGAN WILDCAT COMPLETIONS

Jackson County: Failure—Fisher-McCall Oil & Gas Co.'s Clarke 1, ne se 1-3s-1w, Dundee lime 2140 ft, dry 2670 ft.

Lapeer County: Failure—H. H. Heinig's Webber 1, nw nw nw 30-9n-12e, Traverse 1725 ft, Monroe 2215 ft, abnd 2954 ft.

Mason County: Failure—Gordon Oil Co.'s Cartier 2, s½ sw sw 22-20n-15w, Traverse lime 1690 ft, abnd 2459 ft.

Missaukee County: Discovery—Sun's Horner 2, s½ sw sw 11-24n-5w, Dundee lime 3071 ft, sg 4019 ft, pay 4412 ft, acidized, pump 18 bbls, td 4437 ft.

Van Buren County: Failure—Welsh Oil Co.'s Brockway 1, se nw ne 23-3s-14w, Traverse 1070 ft, abnd 1107 ft.

MICHIGAN WILDCAT START

Livingston County — Perrine & Shepherd's Leith 1, se nw ne 32-2n-6e, rig.

California

Extensions Completed In Three Areas

Extension wells completed in Kern, Los Angeles and Orange County areas. Ventura County wildcat is failure.

Kern County: An easterly extension of Southeast Belridge has been completed by E. A. Parkford's No. 3, 12-29-21, pumping 110 bbls daily, 14-gravity oil, from 1102 ft. Top of oil sand was placed at 922 ft.

Bolsa Chica Oil Company is preparing to drill a wildcat in the Dyer Creek area approximately four miles northwest of Shell's Smith 56-X-11 well in 11-26-27.

Los Angeles County: Continental has completed a northeastern outpost in the Turnbull Canyon field, 13-2-11, in Turnbull Comm. No. 3, which pumped 314 bbls of 22-gravity oil in 16 hours. Completion is a redrill job plugged back from 5608 ft and redrilled to 3801 ft.

Orange County: Texas Co.'s Buena Park 4-E-1, 36-3-11, Buena Park area,

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has been placed on production flowing 180 bbls of 23.5-gravity crude, an outpost extension in the northwest section of the field.

Ventura County: Ventura Southern Oil Co. has indefinitely suspended McCampbell 1, wildcat in 19-3-19, Grimes Canyon area, after drilling to 5363 ft. Last 150 ft of hole was reported as all hard gray barren sand.

CALIFORNIA FIELD COMPLETIONS

Fresno County: Helm — Amerada's Clover 75-34; 2970 ft s 990 ft w nec 34-16-17. Flowed 175 barrels 65.2-gr 19/64 bean perfs 7924-8004 ft. Top McLure 5686 ft, Temblor 5904, Kreyenhagen 7575, Eocene 7975, td 8223 ft.

Kern County: Belridge South—E. A. Parkford's No. 3; 233 ft s 766 ft e center 12-29-21. Pumped 110 barrels cutting 30% sand 176 ft perf ldd 1100 ft, top oil sand 925 ft, td 1102 ft.

Kern County: Midway - Sunset — Chanslor-Canfield Midway Oil Co.'s No. 40-22; 710 ft n 790 ft w center 22-31-22. Pumped 2 barrels 11.7-gr 170 ft perf ldd 1349 ft, td 1498 ft.

Richfield's Southwestern 11; 2045 ft s 3374 ft e w¼ cor 2-31-22. Bailed muddy water trace oil and gas 403 ft perfs ldd 1247 ft, td 1391 ft, abnd.

Los Angeles County: Newhall - Potrero—Barnsdall's RSF 29; 4279 ft n 3472 ft w se cor 27-4-17. Flowed 1450 barrels 33.9-gr 32/64 bean. Top 3rd zone 7206 ft, td 7553 ft.

Ventura County: Ventura Avenue—Alliance Petroleum Corp.'s Hisey 5; 521 ft n 1530 ft w CL No. 1. Flowed est 1000 barrels 30-gr 975 ft perfs ldd 10,574 ft, td 10,575 ft.

California wildcat completions, none.

CALIFORNIA WILDCAT STARTS

Kern County—Bolsa Chica Oil Corp.'s Clark 1, sec 36-25-26, Jasemine-Dyer Creek area, lcn.

Kern County—Macvee Associates, No. 1, sec 33-29-21, lcn, McKittrick area.

Kern County—Texas Co.'s Lambert Lands No. 2, sec 29-26-28, lcn, Mount Poso area.

Madera County—Texas Co.'s Chowchilla 27-26, sec 26-11-14, rig, Moffatt Dome area.

San Luis Obispo County—Chanslor Canfield Midway Oil Co.'s Thomas 1, sec 1-31-21, grade. Northwest Midway area.

Tehama County—Texas Co.'s Walbridge No. 1, sec 32-28-2, lcn, Tuscan Buttes area.

Ventura County—Tide Water's Hidden 2, sec 5-4-18, lcn, Piru area.

Eastern States

NEW YORK COMPLETIONS

Allegany County: Liberty Share Corp.'s Madken farm, Bolivar, 10 bbls, Richburg, 1439 ft.

Sawyer Oil Co.'s Mix farm, Bolivar, 6 bbls, Waugh-Porter, 1580 ft.

South Bolivar Oil Co.'s McKelvey farm, Bolivar, 8 bbls, Richburg, 1360 ft.

Central Oil Co.'s Holtum farm, Scio, 8 bbls, Richburg, 1152 ft.

Harold Duke et al's Allen farm, Wirt, 6 bbls, Richburg, 1365 ft.

Helen Randall's Pike farm, Alma, 15 bbls, Richburg, 1451 ft.

S. G. Ball et al's Gowdy farm, Scio, 5 bbls, Richburg, 1370 ft.

Bradley Bros.' Sawyer farm, Bolivar, 6 bbls, Richburg, 1410 ft.

Bradley Bros.' Sawyer farm, Bolivar, 5 bbls, Richburg, 1425 ft.

Bradley Bros.' Sawyer farm, 5 bbls, Richburg, 1380 ft.

H. H. Patterson's Browning farm, 8 bbls, Scio, 873 ft.

Bradley Prod. Corp.'s Potter farm, Andover, 20 bbls, Potter, 2027 ft.

L. H. Thornton et al's Fassett farm, Willing, Fords Brook, 7 bbls, 1290 ft.

Scott & Sackinger's Scott farm, Bolivar, 10 bbls, Waugh-Porter, 1429 ft.

Shamrod Oil Co.'s Frost farm, Genesee, 7 bbls, 1342 ft.

Steuben County: N. Y. Penn Gas Field—N. Y. State Natural Gas Co.'s Pease 1, dry 4844 ft.

Tompkins County: N. Y. Penn Gas Field—Leo Leiderbach's Armstrong 1, 0.2 gas, 1619 ft.

NEW YORK INTAKE WELLS

Allegany County—Trio Oil Co.'s Big Four farm, Bolivar, Richburg, 1384 ft.

South Bolivar Oil Co.'s McKelvey farm, Bolivar, Richburg, 1345 ft.

Ebenezer Oil Co.'s Vincent farm, Scio, Richburg, 1380 ft.

Messer Oil Co.'s "M," Russel farm, Alma, Richburg, 1388 ft.

Bradley Prod. Corp.'s Russell farm, Alma, Richburg, 1340 ft.

Hog Brook Oil Co.'s Pike farm, Alma, Richburg, 1423 ft.

J. F. McBride's Duke farm, Alma, Richburg, 1337 ft.

W. O. Taylor Est.'s Coyle farm, Alma, Richburg, 1326 ft.

Bradley Bros.' Sawyer farm, Bolivar, Richburg, 1435 ft.

Sloan & Zook's Green farm, Genesee, Richburg, 1424 ft.

Wightman & Conklin's Wetherby farm, Clarksville, Nile, 1433 ft.

Messer Oil Co.'s Bona Vista lease, Wellsville, Scio, 920 ft.

OHIO COMPLETIONS

Ashland County—Ohio Fuel's Arnold 1, 0.28 gas, 2790 ft.

Athens County—Ohio Fuel Gas Co.'s Shee 1, 3 bbls, 1704 ft.

Coshocton County—Dunman Oil Co.'s McKee 1, 40 bbls, 3256 ft.

Jefferson County—John Elliott's Cooper 1, ½ bbl, 1437 ft.

Lawrence County—Portage Producers' Cambria Clay Products 19, 0.23 gas, 393 ft.

Medina County—William Dempsey et al's Ritz 1, 50 bbls and 0.75 gas, 3232 ft.

Meigs County—Fleming et al's Nelson 3, 0.3 gas, 876 ft.

F. Utsinger's Gorby 2, 0.1 gas, 640 ft.

Mahoning County—Tri-County Oil & Gas Co.'s Schroeder 1, 2 bbls, 628 ft.

Tri-County Oil & Gas Co.'s Roller 2, 3 bbls, 624 ft.

Monroe County—Carlos Luburgh et al's McVey 5, abnd 1300 ft.

Morgan County—Ohio Fuel's Longstreth 2, 0.13 gas, 1158 ft.

Muskingum County—Industrial Gas' Finley 1, 10 bbls, and 0.4 gas, 4408 ft.

Noble County—Marion Oil & Gas' Hurst 1, abnd 1792 ft.

Perry County—Preston Oil's Wagner 1, 78 bbls, 3360 ft.

Preston Oil's Shaw 5, 29 bbls and 0.03 gas, 3270 ft.

Tuscarawas County—Nat. Gas of W. Va.'s Snyder 1, 0.06 gas, 4921 ft.

Washington County—Chas. Alloway et al's Ward 1, 2 bbls, 675 ft.

PENNSYLVANIA COMPLETIONS

Armstrong County—Local Co.'s Ruppert 1, 0.06 gas, 3305 ft.

Clarion County—T. W. Phillips Gas & Oil Co.'s Wells 4, 0.13 gas, 1504 ft.

Greene County — Manufacturers Light & Heat Co.'s White 1, 0.5 gas, 3511 ft.

Equitable Gas Co.'s Horn 1, 0.82 gas, 2862 ft.

Washington County—Union Gasoline & Oil Corp.'s Craft 5, 5 bbls, 3010 ft.

WEST VIRGINIA COMPLETIONS

Boone County—Hope Natural Gas Co.'s Federal Coal Co. 8597, abnd 3756 ft.

Calhoun County—Hope Natural Gas Co.'s Bennett 8603, 1.03 gas, 2089 ft.

Creed Yoak's Sharp 1, ½ bbl, 1893 ft.

Gilmer County—Carnegie's McDonald 1, 0.42 gas, 1774 ft.

Jackson County—W. Va. Gas Corp.'s Monday 1, 5.96 gas, 5129 ft.

Columbian Carbon Co.'s Battes 1, abnd 5250 ft.

Hope Natural Gas Co.'s Pfost 8623, abnd 5183 ft.

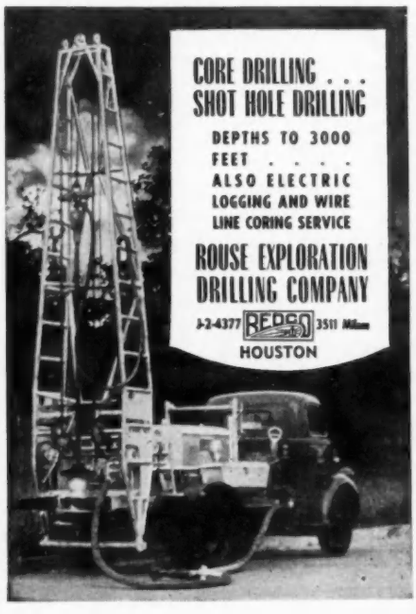
Kanawha County—Columbian Carbon Co.'s Haynes-Ashby 1, 5.03 gas, 5428 ft.

Putnam County—E. J. Elkins' Rogers 1, 0.05 gas, 2269 ft.

Ritchie County—Hope Natural Gas' Hays 1, 0.1 gas, 2001 ft.

Upshur County—Cumberland & Allegheny Gas Co.'s Lewis 319, 0.1 gas, 3949 ft.

Wood County—A. M. Cooper et al's Mellinger Heirs, 10 bbls, and 0.17 gas, 1985 ft.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Men in the Industry's News

JOHN W. JORDAN on August 18 advanced to vice president of Sinclair Prairie Oil Company, Sinclair Wyoming Oil Company and Repollo Oil Company. He began his career with the Sinclair organization in June, 1916, as a laborer in the pipe line gang at Drumright, Oklahoma, working his way up as gauger, tank strapper, pumper, roustabout, tool dresser and gang pusher, in various fields of Oklahoma, Kansas and Texas.

During the first World War he served in the 57th Infantry of the United States Army.

In 1920 he was made production foreman at Homer, Louisiana. He was transferred to Wyoming in 1922 and a year later was advanced to district superintendent. From 1928 to 1931 he was district superintendent at Maud, Oklahoma, and was then transferred to East Texas. In December, 1935, he was advanced to division superintendent, with headquarters at Midland, Texas, of the newly created producing division consisting of West Texas, North Central Texas, Texas Panhandle and New Mexico.

Early in 1938 he was called to the general office in Tulsa as executive assistant to W. L. Connelly, chairman of the board of directors, and in April, 1941, was promoted to general superintendent of production, which position he held at the time of his elevation to the vice presidency. Twenty-six years—more than half his life—have been spent in continuous service of the Sinclair companies.

Jordan was born in Olean, New York, on October 10, 1895, where he received his education in the public schools.

JAMES E. MOSS, manager of the marine department of The Atlantic Refining Company, has been appointed a member of a panel of consultants of the United States Merchant Marine Council. Moss will be succeeded as manager of operations of the marine department by William G. Anderson, superintendent of the operating division.

FRANK J. GARDNER, Houston geologist, has been commissioned a lieutenant in the Ordnance Department of the United States Army.

F. M. STOCKTON recently joined Oil Center Tool Company, Houston, as accountant and office manager. He formerly was a supervising accountant in the Kansas City office of Arthur Anderson & Company, a national organization of public accountants.

DR. AFFONSO CESARIO ALVIM, mining engineer with Drilling Exploration Company, Inc., has returned to Brazil following several months spent studying oil methods and equipment in the United States. Dr. Alvim visited a number of California and Gulf Coast fields and most of the important equipment manufacturing plants in these areas. In Brazil he is in charge of drilling operations for his company which has a contract with the Brazilian government for exploration work in that country.

CLARK SHERWOOD has purchased the interest of Cleave McDannald in the rig building firm of Sherwood & McDannald. Henceforth the concern will be operated under his individual name, with headquarters at 1903 University Street, Houston. While Sherwood is in the United States Navy, operations of the firm are being conducted by the same rig builders and field men who have been associated with him for the past several years.

HUGH L. SAWYERS, secretary, has announced that the annual meeting of the New Mexico Oil and Gas Association will be held at Artesia, December 2, 1942.

SHERRIL WILLIAMS, scout for Cities Service Oil Company, has been transferred to Mattoon, Illinois, from Mt. Pleasant, Michigan. William Quigley, Bartlesville, Oklahoma, will replace Williams in Michigan.

GEORGE C. GIBBONS, after having spent the past several months with the War Production Board in the organization of Industrial Salvage Operations in the Southwest, has returned to full time work on his official duties as executive vice president of the Texas Mid-Continent Oil & Gas Association, at Dallas.

C. L. ORR, secretary, and E. G. Dahlgren, engineering technical director of the Interstate Oil Compact Commission, appeared before Central Oklahoma API Chapter in meeting August 28 at Oklahoma City to discuss the Compact and its functions.

A. D. SMALL, managing engineering research for Oklahoma City field operators, has accepted a commission as major in the Army Engineering Corps and is reporting immediately.

CHARLES SPITZFADEN, sales engineer for Continental Supply Company at Oklahoma City, has reported as ensign in the Navy.

J. MARK GARDNER, drilling superintendent for Phillips Petroleum Company, Bartlesville, has reported to the Army as a lieutenant.

HAL PAGE, Kansas Corporation Commission as natural gas engineer, has resigned

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to become superintendent of the newly formed Eastern Kansas Gas Company, which is taking over some of the shallow properties of Oklahoma Natural Gas Company, and has 133 miles of lines, serves Chanute, Erie and Iola.

THOMAS F. O'ROURKE, formerly in the production department of Standard Oil Company of Texas, is now stationed at Fort Belvoir, Virginia, where he is attached to Engineers Candidate School.

CLAYTON N. SMITH, Houston oil operator, has been commissioned a first lieutenant in the Army Air Forces and is now in the officers' training school.

JACK K. BAUMEL, director of production for the Texas Railroad Commission, has been named by Governor Leon C. Phillips of Oklahoma to the Research and Coordinating Committee of the Interstate Oil Compact. Baumel replaces Dr. F. V. L. Patten, who resigned recently to accept a position with the Office of the Petroleum Coordinator.

L. KENNETH LANCASTER, assistant district geologist for Tide Water Associated Oil Company in Tulsa, has been transferred to Shreveport as district geologist.

HARRY J. LESCHEN, president of A. Leschen & Sons Rope Company, St. Louis, died recently.

PETER A. ANGENEND, assistant treasurer of the Texas Pipe Line Company, died August 20, at Houston.

Squeaks from the Bull Wheel

Confessed Hoarder

Say, you seem to know that new gal in the office. Why don't you introduce me?

Nothing doing, I'm hoarding my sugar.

Qualifications

"You say you've never had any experience selling in our industry?"

"That's right."

"What selling experience have you had?"

"None."

"Have you ever studied advertising or salesmanship?"

"No, sir."

"Then why did you come in here and ask for a salesman's job."

"I've got a brand new set of tires."

"Why didn't you say so in the first place? When do you want to start? How would West Texas suit you?"

Miracle

An old woman at the Ulster frontier was asked if she had anything to declare. No, nothing at all. But what was in the bottle? Oh, only holy water, holy water from Lourdes. The customs officers pulled the cork.

"Whiskey it is."

"Glory be to God. A miracle!"

Hopeful

What a mess! We're going to land on that desert island and I'll bet it's full of wild men.

Cheer up, Bud, where there's wild men there's bound to be wild women.

In the Trenches

A couple of colored boys were crouched in a shell hole while a barrage whanged away over their heads.

"Looka here, Rastus," said one. "Ain't you skeert?"

"Not me. Ain't no shell gonna come along got my name on it."

"Me neither. I ain't worried about my name on no shell. What I am worried about is, maybe there's one marked 'To whom it may concern.'"

Double Test

Visitor—"Don't you cut yourself pretty often with this straight-edge razor?"

Mountaineer—"Naw. I been shaving nigh on to five years now and I ain't cut myself neither time."

Too Much Dilution

"Say, you sure must like coffee—this is your fourth cup, isn't it?"

"Sure do like it—that's why I'm willing to drink so much hot water to get a little of it."

Not on His Side

"They say Hitler is having nightmares now."

"How's that?"

"He keeps telling himself that the commander of our European theater of war is named Eisenhower; that its air commander is named Spaatz; and that the first soldier of our A.E.F. to step ashore in Ireland was called Henke."

All Set

Jake was a worthless and improvident fellow. One day he said to the local grocer: "I got to have a sack of flour; I'm all out, an' my family is starvin'."

"All right, Jake," said the grocer. "If you need a sack of flour and have no money to buy it with we'll give you a sack. But, see here, Jake; there's a circus coming to town in a few days, and if I give you a sack of flour are you sure you won't sell it and take your family to the circus?"

"Oh, no," said Jake. "I got the circus money saved up already."

Just Can't Win

A golfing clergyman had been badly defeated on the links by one of his parishioners who was thirty years his senior.

The clergyman returned to the clubhouse in a rather disgruntled state of mind.

"Cheer up," his opponent grinned, "remember you win at the finish. You will be burying me some day."

The clergyman sighed most dejectedly and replied:

"Even then, it will be your hole."

Notes for the Equipment Buyer and User

Triplex Hooks

BYRON JACKSON COMPANY

Byron Jackson Company, Los Angeles, Houston, and New York, has announced that BJ triplex hooks are being made in three new sizes: a 60-ton size for use with portable drilling rigs, a 125-ton size for wells of average depth, and a 200-ton size for use on all except extremely deep wells.

Many important improvements in design and construction are apparent in these hooks. The standard triplex (3-hook) body can readily be replaced with the duplex (2-hook) body by removing only the shank pin. Ears on the supper housing permit direct connection to some traveling blocks; others require the adapter illustrated.

A unique double bearing consists of a small ball bearing which is never subjected to a load greater than that imposed by the enclosed relief spring. This smaller bearing permits effortless swivelling of the hook when spinning-in pipe. A larger bearing assumes any load beyond the capacity of the relief spring, and this bearing is of ample size and strength to carry the recommended drilling load for each size hook.

A swivel lock of new design provides 8 positions for locking the hook to present rotation while drilling. This swivel lock is operated by a roller on a cam, actuated by a low-stressed torsion spring, and is both positive and trouble-free in service.

Direct-connected to block.

(Left) With "Triplex" Body

With "Duplex" Body

BJ Hook

Stop Nut

ELASTIC STOP NUT CORPORATION

Elastic Stop Nut Corporation, Union, New Jersey, has issued a wall chart, explaining the uses of its various types of self-locking nuts, to engineering departments, drafting rooms, maintenance shops, and schools.

The center of the chart is devoted to an illustrated description of the basic principle by which a self-locking action is obtained in all Elastic stop nuts, regardless of type. This is followed by illustrations of some of the advantages to be obtained by the use of the nuts and, completing the presentation, there are cross-section drawings showing the method of application of the nine types most generally used, with corresponding photographs of these types.

The chart measures 21 by 27 inches and is reinforced at top and bottom by metal strips, with an eyelet for hanging. Copies can be obtained by writing to the manufacturer.

Material Handling

Trackson Company, Milwaukee, Wisconsin, has issued a bulletin showing how industries are speeding the digging and handling of materials with Trackson equipment. Two dozen action views show how Traxcavators and pipe layers are solving tough jobs in as many different industries.

Trackson pipe layers (tractor cranes) are shown at work on pipe line construction and on miscellaneous crane work around industrial plants and construction projects. Interesting and informative views are presented of Traxcavators digging, loading and handling materials in mines, smelters, oil fields, chemical plants, foundries, quarries, brick plants, gas plants, etc., along with helpful data.

Cleaning Oil

CURRAN CORPORATION

Curran Corporation, Malden, Massachusetts, has announced development of a light "Polar K" oil which is claimed will remove perspiration, water, oil, and dirt from steel surfaces.

The new oil is said to be superior to alcohol for dehydrating and cleaning steel surfaces, bearings or similar parts which have become wet or have been left with a film of grinding emulsion.

It instantly displaces and absorbs water and leaves a thin film of lubricant and rust preventive. The oil is said to be especially applicable for protecting during storage—the water side of steam turbines, water pumps, meters and steel parts which may have been exposed to rain, immersion in sea water or damp storage.

The oil is completely soluble in hydrocarbon and lubricating oils and no subsequent cleaning procedure is necessary to remove the thin, film protective, rust preventive lubricant.

Heat Transfer

The development and research division of The International Nickel Company has issued a 16-page booklet which includes information in formulae for determining overall heat-transfer rates, the various factors influencing heat transfer through metallic walls, and the thermal conductivities of metals and alloys commonly used in the construction of process equipment.

To the original data there has been added a number of illustrations showing several types of equipment which are characteristic of process units that depend on the transfer of heat through metallic walls for normal operations.

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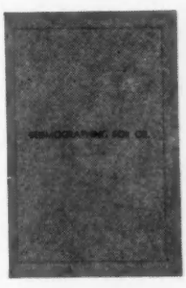

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